

UNIVERSITY OF LIVERPOOL

ANNALS
OF
ARCHAEOLOGY
AND
ANTHROPOLOGY

ISSUED BY THE
INSTITUTE OF ARCHAEOLOGY

EDITED BY
J. P. DROOP

VOL. XXI Nos. 3—4
MCMXXXIV

THE UNIVERSITY PRESS OF LIVERPOOL

CONTENTS

	PAGE
Achaean Pottery. THEODORE BURTON BROWN. (With Plate VIII)	51
Studies in Archaic Greek Chronology. I. Naucratis. EINAR GJERSTAD. (With Plates IX-X)	67
The Nineveh of Tacitus. R. W. HUTCHINSON. (With Plate XI)	85
Three North Syrian Terra-Cottas. D. B. HARDEN. (With Plate XII)	89
Ras Shamra. RENÉ DUSSAUD	93
Jericho : City and Necropolis (Fourth Report). VI. The Palace Area (continued). Palace and Store Rooms, M.B. ii ; Pottery and Houses, L.B. i ; Upper Stone Building, E.I. i. JOHN GARSTANG, M.A., D.Sc., Hon. LL.D., F.S.A. (With Plates XIII-XLIV ; and a Note on an Inscribed Tablet and Fig. 2 by SIDNEY SMITH)	99
Reviews	137
Index	149

ACHAEAN POTTERY

BY THEODORE BURTON BROWN

WITH PLATE VIII

AN attempt was made by Mr. Thompson some years ago ¹ to indicate that the Achaeans may have come to the Aegean from or through the area now considered by most archaeologists to be Keftiu land. His arguments scarcely covered ceramic material, which is now better known, and forms the base of the present similar attempt. Mr. Thompson agreed with the classification of Achaean pottery formed by Dr. Mackenzie,² which corresponds to part of what is known as Late Mycenaean 'B' ware, of a period in time that is 'post L.M. III.' That classification is characterised by craters of the Warrior Vase type, and by the decorative use made of human representations. Though there is much to be said for dividing Late Mycenaean ware into 'A' and 'B' classes,³ yet there is so much that is typical of class 'B' (and of the even later 'quasi-geometric' ware of Crete) in Late Mycenaean 'A,' that the writer does not, in this essay, follow that differentiation in the hope of simplifying an extremely complicated subject. The whole of Late Mycenaean ware, from about 1375, is supposed to be intrusive in Crete, having come from the Greek mainland. There are, however, too many lacunae to accept that derivation wholeheartedly, and, for this reason also, classification on the basis of existing material is likely to be uncertain.

The Achaeans who fought the Trojan war were widespread in the Aegean during the twelfth century. They are best known from traditional tales, and through the *Iliad*, since very few material remains have yet been recognised as specifically Achaean. Tradition said of them that

1. *Liverpool Annals*, Vol. V, pp. 1 ff.

2. *B.S.A.*, Vol. XIII.

3. That division is best explained, so far as pottery is concerned, in the *Catalogue of Vases in the British Museum*, Vol. I, part I, pp. xli-xliii.

they came from the East, were rich, and were of the same blood as the inhabitants of Greece. Those statements have never been explained, nor is it known when the Achaeans arrived in Greece, nor when the Trojan war was fought. Unfortunately, attempts have been made to define an 'Achaean period,' none of which covers the whole field of fact. That is, as yet, impossible, and the present essay will be confined to an attempt to build up a view of Achaean ceramics, beginning with the latest pottery that was contemporary with Achaean activity.

It has been suggested elsewhere that the Achaeans were related to the Ahhijava and the Akaiwasha, since they all bear the same name. The two latter people are difficult to trace, since they have not left any recognised remains, although they had a long history.¹ Since they have the same name, are contemporary and both attack lands at the eastern end of the Mediterranean, they are possibly one and the same people. They sailed on the sea,² and therefore it is reasonable to take into consideration a decided change in Cypriote civilisation during the time of their activity. (For Cypriote civilisation is remarkably cosmopolitan.) This change, reasonably well dated to the time of Rameses III,³ was the appearance of 'sub-Mycenean' ware,⁴ which is sufficiently different from any pottery known earlier in the island as to suggest its derivation from a non-Mycenean source. It is not, however, of an entirely new type, since several of its shapes and designs are Mycenean, while some of its characteristics⁵ also are known in Mycenean ware, both in Cyprus and the Aegean.⁶ Those characteristics are not, however, traditional Mycenean elements. Thus it would be incorrect to consider that the beginning of sub-Mycenean ware indicates the coming of a new people, but rather that a new type of civilisation, which had already appeared on the scene during late Mycenean days, had now

1. The Ahhijava are mentioned in the reign of Mursil, c. 1350, *C.A.H.*; also Hrozný in *Archiv. Orientální*, Vol. III, no. 2.

2. The Akaiwasha attack the Delta in ships.

3. Gjerstad, *Studies on Prehistoric Cyprus*, p. 330. (It may be recalled that the introduction of the post-1400 type of Mycenean pottery may also indicate a change in Cypriote civilisation during the time of Ahhijava activity. The most important part of the Ahhijava period, however, was, to judge by literary records, at about 1200 B.C.)

4. Gjerstad, *loc. cit.*, pp. 220-28.

5. The chequer, *B.M.C.*, C739, C764; the pot-hook spiral, *B.M.C.*, C772; the metope style, *B.M.C.*, C718, C730; concentric circles, *B.M.C.*, C703, C771.

6. Chequer, *B.M.C.*, C681, for Cyprus; A 1075, 13, for Mycenae. Pot-hook spiral, *B.M.C.*, C682, for Cyprus; A 913, A 930, for the Aegean. Metope style, *B.M.C.*, C669, for Cyprus; A 1075, 1, 10, 12, 13, for Mycenae. Concentric circles, *B.M.C.*, C661, for Cyprus; A 1072, A 1076, 1, 6, for Mycenae.

become supreme.¹ The importance of this ware lies in the facts that, while it is dated to 1200, and possesses elements in common with Aegean Mycenaean ware, it is decorated with matt paint and, to a very large extent, in a rectilinear style. This does not suggest a direct descent from Late Mycenaean ware, or any close relationship with it, any more than Cypriote Mycenaean ware suggests a derivation solely from Aegean Mycenaean pottery.²

In this new sub-Mycenaean pottery of Cyprus there appear some distinctive new types of shape³ and design, the latter of which include compass-drawn concentric circles,⁴ triangles painted solid (not outlined),⁵ fringed lines,⁶ reserve decoration,⁷ and, perhaps, the 'lyre' ornament.⁸ In these new decorative designs there is a very close parallel between Cyprus and the Aegean. For examples of these designs occur all over the Aegean, and are characteristic of 'quasi-geometric' Cretan ware,⁹ which is certainly under Achaean influence.¹⁰ They are common also in

1. Sub-Mycenaean ware is found associated with Mycenaean ware in Cyprus, which does not indicate any great break with the past (Gjerstad, *Studies on Prehistoric Cyprus*, pp. 279-81). In the neighbouring Keftiu land, Wainwright has shown that no great break in the prevailing type of civilisation occurred at about 1200. *J.E.A.*, Vol. XVII, p. 43.

2. Cypriote Mycenaean ware employs human, bird and animal figures for decoration with a freedom unknown during the Late Bronze Age in the Aegean as early as 1400. Murray, Smith and Walters, *Excavations in Cyprus*, Enkomi Tomb 66. See also Evans in *A.J.I.*, Vol. XXX.

3. In the Nicosia Museum, unpublished. This shape is published elsewhere, e.g. *A.J.A.*, 1901, Pl. VI, no. 4, and Hall, *Vrokastro*, Pl. XXX.

4. *B.M.C.*, C771.

5. Myres, *Handbook of the Cesnola Collection*, nos. 413, 442.

6. *B.M.C.*, C738.

7. *B.M.C.*, C696.

8. *B.M.C.*, C764.

9. Hall, *Vrokastro*, *passim*, and Evans, *P. of M.*, II, i, pp. 136-7.

10. Mr. Thompson considered that, as iron swords are not used at the Trojan war, therefore they are not Achaean. The use of iron and of the rite of cremation are, however, certainly innovations of the Achaean period (though possibly of the post-Trojan War period). The pottery used contemporaneously with their introduction at Vrokastro ('quasi-geometric' ware) may be stated to be definitely of the Achaean people.

Similar pottery has been published by Mr. Payne (*B.S.A.*, Vol. XXIX) of the class of the Vrokastro 'quasi-geometric' ware, but perhaps a little later, as he suggests. He proposes a date as late as c. 950-875 for his vessels, apparently only because the conical foot appears in that ware. Yet this type of foot is well known in Cyprus before 1200 (Murray, Smith and Walters, *loc. cit.*, Fig. 63, no. 1004), and Mr. Payne himself insists on the direct influence of Cyprus on Crete, at least in the 'orientalising period.' As a matter of fact, this influence is probable in the 'proto-geometric period,' for a vessel of that date (*B.S.A.*, XXIX, Pl. V, no. 2) bears a design proved by him Cypriote and non-Aegean. Moreover, he has had to suggest the incomprehensible situation that a type of bird known at Gezer had to remain there, 'or elsewhere' out of sight after its period according to the evidence from its home, in order that it may appear in Crete at the time he has chosen for his 'orientalising period' (*B.S.A.*, XXIX, p. 289). If, however, his dating were to be slightly altered (by increasing the antiquity of his pottery) there would be no need either for this suggestion, or for the proposal that proto-geometric ware in Crete is to be dated to about 950 B.C., when precisely similar ware in Cyprus is certainly not much later than 1200 B.C. Miss Hall's dating is also improbable, but, since Cypriote evidence is absolute, neither of those theories need be considered.

Macedonian 'C' pottery,¹ which has already been shown by Mr. Heurtley to have a close analogy with East Crete (Vrokastro), to be known in many places on the Greek mainland, and to be, to some extent, developed by contact with the south. Both Cretan and Macedonian wares are matt painted, and, despite individual variations, cannot be unrelated to Cypriote sub-Mycenean ware, which will be considered here to be as much Achaean as matt painted ware from Vrokastro.

This has nothing to do with the greatest Achaean centre, Mycenae. At that town pottery of Late Minoan I and II types gives way to the well-known Aegean variety of Late Mycenean ware, which is followed in its turn by geometric ware. There is little trace of the matt painted style referred to above.² But, from the beginning of the Late Helladic III period at Mycenae (the time of the building of the tomb of Clytemnestra), many signs in Greece indicate some connection with Cyprus. Carved ivory, the technique of inlaying, and perhaps the technique of faience, find close parallels in Cyprus.³ Details of the post-1400 pottery of Mycenae, such as the Tell-el-Amarna style and techniques, the shape of the warrior vase, the rather unusual clay of the warrior vase (which is perhaps an imported vessel) and such ceramic decoration as concentric circles and concentric half-circles, the design of the bird with one wing raised above its body, the metope style, 'reserve' decoration and the use of white as an additional colour may also be quoted as having close parallels in Cyprus and in the Near East. These details are characteristic of a period and place which was above all Achaean. It would appear therefore as if there were two different varieties of pottery of the Achaean period in the Aegean, both of which must have been made by Achaeans,

1. Heurtley in *B.S.A.*, XXVII and XXVIII.

2. Solid triangles occur, but in glaze paint. Schliemann, *Tiryns*, Pl. XXVI b. Reserve decoration also occurs, *B.S.A.*, XXV, Pl. XI m, and two shapes (*B.S.A.* XXV, fig. 19 a and Pl. X, d, e, f) known only in Cyprus in sub-Mycenean ware.

3. For the Cypriote origin of ivory carving as known from the Tomb of Clytemnestra see *B.S.A.*, XXV, p. 370. So far as faience is concerned, the single piece from Mycenae may direct attention towards Cyprus. According to Mr. Thompson, the design indicates an East Mediterranean origin. Cypriote faience has parallels in Mesopotamia, Egypt and Crete, and the late Dr. Hall wrote a paper (*J.H.S.*, XLVIII, part I) suggesting that Crete was the original home of this technique. It is, as a matter of fact, impossible to be certain, though Minoan origin is improbable, since a characteristic shape (Hall, figs. 6, 7, 8), though known in Crete, appears to have its closest analogy in Vassiliki ware, which is probably not Minoan, but Eastern, in origin. Moreover, the 'cog' decoration is known in the East (at Jericho, *L.A.A.A.*, XIX, nos. 1-2, Pl. XII, no. 4), and the 'human mask' is, so far as is known, earliest at Ur. The indications, to an unprejudiced observer, suggest that an Eastern origin is as likely as Cretan. (The probability that Crete, during Middle Minoan days, had a strong connection with the East, will be dealt with in another paper.)

and both of which are represented in Cyprus, where they are not mutually exclusive.

Dr. Mackenzie's 'Achaean period' is, ceramically, well known.¹ But that period cannot be isolated from Mycenaean and protogeometric times, and is obviously longer in duration than the narrow space of time that he would confine it in, when he speaks of cremation and the decorative use of human representations. The shape of the warrior vase, without human representations and cremation,² is known throughout Late Helladic III, and, in Cyprus, is associated with human figures as early as 1400. Other ceramic types known at Mycenae in the Late Helladic III period also occur in Cyprus, some appearing there for the first time before 1200, others for the first time after that date,³ a fact that suggests that no true division of pottery at Mycenae can be made after 1375. (One definite type of civilisation runs through both Mycenaean and sub-Mycenaean periods in Cyprus, although those periods are represented by different types of pottery.) The same can be said of Crete, where ceramic varieties known also in Cyprus begin to appear in Late Minoan III ware, some of which are still to be seen at the coming of the geometric period.⁴ Miss Hall's Vrokastrian criticism of Dr. Mackenzie's 'Achaean period' is as faulty as that period itself, both for that reason and also because she considers that cremation is a necessary sign for

1. The 'Achaean period' that Dr. Mackenzie outlined is very well illustrated at Asine (Frödin and Persson, *Asine*). At that site there are remarkable parallels with Mycenae, Crete, Cyprus and Salamis. Compare *Asine*, Pl. XLII, nos. 1 and 2, with *B.S.A.*, XXV, Pl. V b and Pl. X g. Also *Asine*, Pl. XLVI, with Hall, *loc. cit.*, Pl. XXV, no. 2, and Pl. XXVII, no. 4. Also *Asine*, Pl. XXXIII, no. 1, with Gjerstad, *loc. cit.*, p. 222, goblet 1 and crater 1. Also *Asine*, Pl. XXXIII, no. 2, with *Ath. Mitt.*, Vol. XXXV, Pl. VI, and with *Ep. 'ApX.*, 1904, fig. 6.

2. The warrior-vase shape with those adjuncts is typically Achaean, according to Dr. Mackenzie. It occurs at Moulana, Tomb A (*Ep. 'ApX.*, 1904, Pl. III). At that tomb swords occur of a type dated in Egypt to c. 1210, where it is intrusive. It is equally intrusive in the Aegean, but known, before the date of matt painted ware, at Moulana. T. E. Peet in *B.S.A.*, Vol. XVIII, p. 282.

3. 'Mottled wash.' Forsdyke in *Essays in Aegean Archaeology presented to Sir Arthur Evans*, p. 26, and *B.S.A.*, XXV, p. 291.

Compare Gjerstad, <i>loc. cit.</i> , p. 213, Crater I, with <i>B.S.A.</i> , XXV, Pl. V, a-f.
" " " p. 223, no. 10, " " fig. 19 a.
" " " p. 224, amphora 3, " " Pl. X, d, e, f.
" " " p. 216, jar 1, " " Pl. IX, 6.

4. 'Mottled wash.' Bosanquet in *B.S.A.*, Supp. Paper no. 1, p. 74, and Forsdyke, *loc. cit.* (as above).

Compare *B.S.A.*, Supp. Paper, no. 1, figs. 90, 91, 94, 99, with Gjerstad, *loc. cit.*, p. 213, no. 1; p. 215, no. 11; p. 216, jar no. 1 and amphora.

Compare also Hall, *loc. cit.*, fig. 89 e and i, with Gjerstad, *loc. cit.*, p. 223, no. 10 (both types by the one number). Miss Hall (*loc. cit.*) points out (p. 181) that a new influence shows at Vrokastro during the Mycenaean period.

Achaean presence, despite its rarity in the *Iliad* and absence from Mycenae. It would appear that both these authorities do not allow for the fact that, during the Late Mycenaean period, events cast shadows before they occurred. In other words, if any definition of the Achaean age is attempted, it must be realised that the Achaeans, although they were people of decided individuality, had already accepted and conformed to the tradition of Late Mycenaean civilisation when they appeared in the Aegean, and that they showed their own special peculiarities slowly, and differently in different areas. That is the most probable explanation of the remarkable difference between two undoubted Achaean areas, a difference that precludes the possibility of any Achaean diffusion from Mycenae.¹

Since it is the generally held belief that the Achaeans came from the north of Greece, such signs as the decorative use of human figures on pottery, considered as indicative of Achaean people, should manifest themselves earliest in that area. As a matter of fact, they are extremely rare in the north, as also is Late Mycenaean pottery.² What does occur is a mixture of Late Mycenaean and geometric styles, of which the flower is the matt painted period 'C' ware of Macedonia. No influence can be observed direct from Mycenae on the north of Greece, nor can any influence from that area be observed to have any great effect on Mycenae. Thus, although there is a great probability that Achaean influence is represented in the north of Greece by Macedonian 'C' period ware, yet there is no ceramic indication that the Achaean home was there. (There is a prejudice against believing in the possibility of a centre of diffusion east of the Dardanelles for the whole, or any part, of the Indo-European peoples. So far as present evidence goes, this is unfounded, since there is no decisive evidence in favour of any part of the world for an Indo-European home in preference to any other part. The notorious argument in favour of a European home for the Indo-European peoples, which is based on a few finds of metal objects, is poorly supported by other evidence.) Iron certainly exists north of Greece, but, as was said years ago, iron-working was almost certainly earliest on the

1. It is difficult therefore to speak, *tout court*, of Achaean pottery, when, in one place, that phrase means glaze painted Mycenaean ware, and in another place, matt painted proto-geometric ware. For purposes of definition, only the latter will be referred to as Achaean ware, with the proviso that Macedonian 'C' painted ware, Cretan proto-geometric and Cypriote sub-Mycenaean are all representatives of one civilisation.

2. Wace and Thompson, *Prehistoric Thessaly*, p. 216.

Syrian coast.¹ There are undoubtedly rich iron mines in that area—mines known and used, perhaps, for a long time.² Moreover, on or near the Syrian coast was an established and individual type of Mycenaean pottery (for example, at Ras Shamra),³ a nation of Indo-European people (the Ahhijava), and two varieties of Achaeae pottery (in Cyprus). That is to say, in that area there were most of the essential requisites for the centre from which the Achaeae spread.

Indirect evidence has suggested that the *fons et origo* of the Achaeae pottery fabrics in the Aegean is in the East. Direct evidence is as follows. The Syrian Mycenaean pottery, as known at Ras Shamra, is of 'L.M. IIIA' quality in fabric,⁴ as is the earlier Mycenaean ware of Cyprus. Now while the close analogy between Cyprus and Ras Shamra extends to decorative ideas which are apparently not Aegean, but eastern, Cypriote Mycenaean ware is dated to the end of the fifteenth century.⁵ Since that ware is, therefore, at least as much non-Aegean as Aegean in main outlines (as for example in the decorative use of figures), it seems not to bear any relation to Mycenaean ware in Greece so far as origin is concerned. Moreover, the fact that Aegean ware of before 1375 is as rare in Cyprus as Cypriote ware is in the Aegean before that date might confirm the independence of the two areas. Late Minoan I and II ware is present in Cyprus in sufficient quantity to offer an excellent parallel to the situation that Mr. Wainwright has suggested existed at that date,

1. Evans in *A.J.I.*, Vol. XXX, p. 219.

2. At Zeitun, near Marash; Bulgar Dag, near Diarbekir; and near Arghana. Karajian, *Mineral Resources of Armenia and Anatolia*. Cf. also *Anatolian Relations with the Aegean before 2400 B.C.* (*L.A.A.A.*, XX, p. 44, note 3).

3. Schaeffer in *Syria*, Tome XIII. Since matt painted ware and iron do not appear at that site, it is very probable that the site was abandoned in the thirteenth century, as he says (p. 14). It is very likely that the variety of Achaeae people who used those things are to be identified with the horde that overran Kedi, Carchemish, Arvad, Alashiya and the Hittite Empire (*C.A.H.*, II, p. 267). The people who used iron swords and matt painted ware are, as has been shown, of Achaeae type, and possibly later in date than the Trojan War. They sent innovations to Mycenae (Gjerstad, *loc. cit.*, p. 224, 3, and *B.S.A.*, XXV, Pl. X, d, e, f) and may be considered as the rabble that followed, once the way had been paved. If this is so, then they appear not only to have followed, but to have eventually dominated, their predecessors. It may be that the Trojan War was fought between them and the Achaeae Aegean peoples, for important conditions of the Trojan War (the subsequent collapse of Mycenaean civilisation before the advance of the proto-geometric culture, the fact of more evidence of Aryanisation among 'Trojans' than Achaeae, and so forth) would indicate this, and might even suggest that the geographic position of Troy is unlikely to be at Hissarlik. Such (nationally speaking) civil war as is suggested by the remarkable similarity of the Trojan people to the Achaeae is paralleled elsewhere. It is interesting to observe that tombs were re-used in Crete in the 'proto-geometric' period (Payne in *B.S.A.*, XXIX, p. 229).

4. Sherds from Ras Shamra may be seen at the British School of Archaeology at Athens.

5. Gjerstad, *loc. cit.*, p. 331.

namely, that the Keftiu people of the fifteenth century included some Cretans, but had little to do with Crete after that date.¹ He has proved the locality of Keftiu land,² and thus has made it easy to understand how the technique of Mycenaean pottery fabrics might have reached Cyprus. This seems all the more certain when the fall of Knossos heralds the appearance, in the Aegean, of Cypriote objects, hitherto very rare. In this way the 'independent parallel' between Cyprus and the Aegean is clearly possible. And if the evidence given above for the position of Cyprus in the Aegean world is correct, it is necessary to consider that some of the novel types of Late Mycenaean ware are of Keftiu land, not mainland, origin. An interesting confirmation lies in some unusual forms of pottery decoration of Late Mycenaean ware in the Aegean as well as in Cyprus. These are polychromy, the metope style, reserve decoration and the decorative *motif* of fringed lines, types which become even better known in the matt painted ware of Vrokastro (which was Achaean pottery unhampered by Mycenaean influence). They are also well known at the beginning of the Bronze Age, both in the Aegean and in Keftiu land, and have been shown to mark a drift of peoples westward at that time.³ It will be remembered that the Achaeans were described by the Greeks as being of the same blood as the inhabitants of Greece. That is said too simply to be likely to be untrue. But if it is true, it also suggests the area east of the Taurus as the Achaean home.

The geometric ware that appears at Mycenae after the close of the Mycenaean period is allied in style to Dipylon pottery. This ware may be connected with Keftiu land by a sherd recently found (Pl. VIII, 1⁴) in the Cilician plain and brought to England. This sherd is, in quality of clay and paint, similar to a Cypriote Crater.⁵ The design is like that on the reverse of the Cypriote ivory mirror handle from Cyprus, which

1. Wainwright in *J.E.A.*, May 1931, and in *J.H.S.*, July 1931. It should, however, be remembered that there is nothing in Cyprus of Early Bronze Age Aegean manufacture, though there is a considerable probability that Cyprus and the Aegean are, in effect, closely linked at that period. Thus any, or no examples of Late Minoan I and II period fabrics in Cyprus could not safely be considered to illustrate or deny any theory. (Briefly, it may be said that here, as so frequently in analytical work, isolated facts are dangerous and of less value than the general probability to be evolved by theory and inference.)

2. The writer here follows the opinion of Sir Arthur Evans.

3. *L.A.A.A.*, XX, pp. 43-64. Other characteristic Achaean ceramic decorations used in Early Helladic days are concentric circles, chevrons (Pl. VIII, 5), and the pot-hook spiral.

4. Now in the Ashmolean Museum.

5. *B.M.C.*, C342.

has, on the other side, the 'Arimaspian,' shown by Mr. Wainwright to be a Keftiu type. It is a well-known *motif*, especially so outside Greece.¹ That is as the foregoing study of East Mediterranean Mycenaean pottery would suggest. But, while the hooped animal's hocks and hooves are most delicately painted, the muzzle (if that is what the object to the right is) is only sketched in, in a rectilinear manner. This peculiar method of drawing animals, coupled with the solid filling within the outline, is paralleled exactly in Dipylon pottery. No relationship can be proved, however, but the sherd is a good illustration of the 'similarity with a difference' already noted in the Mycenaean pottery of the Cypriote area.

The evidence given so far suggests that the Achaeans came to the Aegean by way of Cilicia. If this were so, then some parallel movement might be expected in Anatolia, where a variety of Indo-European people was established by 1400, and which, so far as Cilicia is concerned, lay open, easy of access, near by. Anatolian pottery is now becoming known from the excavations at Alishar, where a class of matt painted pottery, called Alishar IV by the excavators, which is widespread in Anatolia during the second millennium, shows compass-drawn concentric circles, stags painted solid (not outlined) and the use of the metope style.² This ware is certainly that to which the cup, now in Constantinople but found at Carchemish,³ belongs, since that cup, in quality of clay and paint, and in its decoration of metope and concentric circles, is exactly paralleled by ware from Alishar. In paint and decoration it is also paralleled in Cypriote sub-Mycenaean ware, as also in Cretan quasi-geometric pottery, and, further, in the very long solidly painted triangles,⁴ and the handle with a flat upper part, placed rising upward from the rim, is paralleled also in the matt painted ware of Macedonia.

1. Evans, *P. of M.*, pp. 123-4. Some examples have been collected by C. E. G. Bunt, *Antiquity*, Dec. 1930.

2. E. F. Schmidt, *Anatolia through the Ages* (No. 11 of the Communications of the Oriental Institute of Chicago), fig. 158. See also Frankfort, *Studies in Early Pottery of the Near East*, II, p. 163 n. 3, and, further, M. de Genouillac, *Céramique Cappadocienne*, I, nos. 9740 and 10053. It may be pointed out that this Alishar IV ware is well known at Boghaz Keui.

3. Frankfort, *loc. cit.*, fig. 18.

4. It is interesting to note that part of the base of a vessel, decorated with similarly shaped triangles in panel system (*i.e.* as on the Carchemish cup) in black glaze on a fabric something similar to proto-Corinthian, was found near Aleppo. (This fragment is now in the Ashmolean Museum.) It is important because, although it recalls some early 'orientalising' ware in the Aegean, it is of no known Aegean fabric. It may, on the contrary, be an example of an eastern prototype of 'orientalising' ware.

It is advisable to break the argument here for a moment to suggest that Achaea, while it is the name of a people in the Aegean, is not necessarily the name of more than a single town in Anatolia east of the Taurus. If there are signs that the same influence occurs in Anatolia as in the Aegean, which in that latter area is called Achaean, it does not follow that the influence in Anatolia can be better defined than 'Indo-European.' This is suggested by the fact that the style of 'Alishar IV' in Anatolia is not close enough to any style recognised in Cyprus or in the Aegean as Achaean to have a closer relationship to it than that of common parentage (on one side). But it is most improbable that it bears no relation to the types described as Achaean here.

Wherever pottery influenced by the metope and concentric-circle style appears, it is as an intruding ware. In Anatolia it ousts the totally different 'black and red on white slip' ware,¹ which is certainly closely allied to the matt painted wares of Middle Cycladic civilisation. This ware, called 'Alishar III' by the excavators of Alishar, who appear not to have stratified it, is best described as Middle Anatolian (2200-1450 B.C.). It is characterised by bowls with incurving rims and the pot-hook spiral, and appears to be a type hardly known as yet east of the Taurus (though it has affinities with Susa I and elsewhere in the East at a very early date). It would seem from this that the style of 'Alishar IV,' which shows a clean break with the past, may be considered as the ceramic parallel to the history of the Hittite Empire, which has no memory of kings earlier than the fifteenth century. That empire was, at least in part, Indo-European in race, and 'Alishar IV' has been shown to have Indo-European similarities. There is no definite proof, but a considerable probability, that it is reasonable to consider 'Alishar IV' as Indo-European, and as the pottery of the Hittite Empire. Hence it will be described here in the more convenient term of Late Anatolian (c. 1450-1190).

There is too close a parallel between the style of painting stags on Late Anatolian pottery, and the style shown on the sherd from Cilicia, for the wares they represent to be independent of each other, despite the difference in quality of paint. Concentric circles, moreover, also occur on Cilician Mycenaean ware (Pl. VIII, 2),² with wheel spokes within

1. Schmidt, *loc. cit.*, figs. 148 and 149.

2. Sherd found beside that shown in Pl. VIII, 1, on the top of a mound, unstratified. It is now in the Ashmolean Museum.

the smallest circle, exactly as at Boghaz Keui.¹ It seems probable that Late Anatolian pottery cannot be unrelated to Mycenaean pottery in Cilicia, or, rather, in Keftiu land, as well as being similar to Achaean matt painted ware, known in the sphere of Keftiu activity (in Cyprus). Near by are the Ahhijava, also Indo-European, whose King had been addressed, about 1350, by Mursil, King of the Hittites, as 'brother.' Despite recently expressed opinions, it is possible that the blood-relationship meaning was intended by that phrase.

It is likely that the pottery of the Indo-Europeans of the Hittite Empire has close analogies with Achaean pottery. Between the two peoples, and probably linking them, stand the Ahhijava. The peculiar Late Mycenaean pottery of Cilicia is what would be expected from the preceding survey, for it shows the ideas of matt painted ware translated into glazed ware of the Late Mycenaean type. This, combined with evidence from Cyprus and the Aegean, suggests that matt paint and rectilinear design are the true expression of the Indo-Europeans at 1500, who, when they reached Cilicia and voyaged to Cyprus and the Aegean, were under the influence of the technique and, to some extent, the decoration of Late Minoan dark on light ware, which was considerably superior to their own achievements. If this were not so, it would be difficult to explain the particular type of civilisation described as Late Anatolian. It could hardly have come from the west,² and it is in no way indigenous in Anatolia.³ If it did come from the east, it seems improbable that the Achaeans could have come from the west, or from anywhere at all except from east of the Taurus. (If the contrary, and only other possible, theory be urged, that the true expression of the Achaeans is in post-1400 Aegean pottery, as known at Mycenae, a great many questions are raised, none of which are easy to answer. No attempt will be made here to examine this possibility, since it appears, to the writer, to be of little importance.) The situation is too closely knit to allow for more than one explanation, and seems to confirm the theories suggested here for the Achaean home, or, rather, the route by which they came to Greece. The question as to when they came is, however, much more difficult to answer.

1. Sherd in the Hittite sculpture department of the Kaiser Friedrich Museum in Berlin.

2. The characteristic Late Anatolian shape of a four-handled crater is unknown in the Aegean, as also is the characteristic type of animal decoration of Late Anatolian ware.

3. Late Anatolian shapes are completely different from, and unrelated to, shapes known earlier at Alishar or elsewhere in Anatolia.

After 1375 the position is fairly clear. Before that date it is largely theoretical.

Cretan civilisation of the Late Minoan I and II periods is fairly straightforward, and, for the purpose of this paper, need not be considered as other than the source of the general tenour of the civilisation of the Late Helladic I and II periods. It is not sufficiently similar to anything recognised as Achæan for any attention to be drawn to it now. But that is not true of the corresponding civilisation of the Late Helladic I and II periods in all its entirety. For, before the end of the Late Helladic I period at Mycenæ, the Tholos Tomb dynasty appears as the sovereign power, a dynasty that continued from about 1500 until the Late Helladic III period, overlapping in date the period when the Achæans were certainly at that town. During that period, at about 1400, Knossos fell, after which event Mycenaean pottery with Achæan characteristics appears in Crete. And while that pottery was being made, Tholos tombs were used.¹ But there is not enough parallel between the post-1400 B.C. pottery fabrics of Mycenæ and Crete to warrant any direct influence between those two areas. Rather would they appear to come under the same external influence, though perhaps at different dates.

The Tholos Tomb dynasty may have nothing whatever to do with the Achæans, at 1500. There is practically nothing at Mycenæ, that is certainly imported from Keftiu land, before the time of the Tomb of Clytemnestra. Nevertheless, certain points do suggest that that dynasty was Achæan.

I. Pelops came to Greece in peace, and assumed the kingship in peace. Thus there was no reason for civilisation to change when the Achæans arrived. It may be noted that, in the earliest Tholos tombs of Mycenæ, a different ceramic 'feeling' manifests itself, and Mr. Wace goes so far as to say that 'a distinctive Mycenaean type' of civilisation appears at the beginning of the Tholos Tomb era.² That is what would have occurred, if the coming of a new people synchronised with the creation of the Tholos Tomb dynasty.

II. Pelops came from the East to Greece. That is to say, Achæans are not to be dated earlier in Crete than in Greece. Their signs appear

1. *B.S.A.*, XXV, p. 395.

2. *B.S.A.*, XXV, p. 309.

in Crete by 1375, and, soon after that, they use Tholos tombs in that island.

III. 'It is . . . self evident that the Tholos cannot possibly have been evolved from the cist and shaft graves of Middle Helladic times, or of Late Helladic I.'¹ Tholos tombs of a primitive sort, however, existed in Early Helladic and Early Minoan times. Here there is a parallel to the fact that distinguishing traits of Achaean pottery also occur in Early Helladic and Early Minoan days, and a confirmation of the suggestion that the period 2100-1500 is an interlude, cutting across the natural development of Aegean civilisation in all its variety.

Thus there is no great obstacle in the way of considering that the Tholos Tomb dynasty was founded by men of Achaean blood. If it were, then all the relevant facts fall into place. But such a suggestion cannot yet be proved, and must therefore be left for further discovery to confirm or reject.²

One characteristic of Achaean pottery remains undiscussed—the pot-hook spiral. This is known, used as an ornament at each end of a comb-like figure, in Early Cycladic incised ware,³ where it recalls Susa I designs. It is common on Middle Minoan ware,⁴ which has close affinities with pottery made east of the Taurus,⁵ and reappears in Mycenaean ware in Cyprus⁶ and the Aegean.⁷ Thus it may well be thought to have come from east of the Taurus, despite its absence from Cyprus in Early Bronze Age days. But it is characteristic of Middle Anatolian ware,⁸ and in Central Macedonia is known by 1650, and at Lianokladi even a little

1. *B.S.A.*, XXV, p. 394. It may be pointed out that the construction of houses in certain villages near Aleppo (*i.e.* in Keftiu land) is still of the beehive type, exactly as shown in reliefs of the time of Rameses II (Wigram, *The Cradle of Mankind*, p. 13).

2. It may be that the whole of the glaze painted wares of the Late Bronze Age should be considered as of an origin external to the Aegean. If this should eventually be proved, then the suggestion that Mycenaean ware in Cyprus owes anything to an Aegean origin would probably be incorrect. It is, however, far more important to understand the general course of the movement of the Late Bronze Age peoples, than to attempt to discover the source of the glaze paint technique. As a preliminary to doing this, it is enough at the present to realise that the facts of the Tholos Tomb Dynasty of Mycenae do not, necessarily, in any way contradict the theory of the Achaeans that is put forward here.

3. *S.P.H.S.*, *Excavations at Phylakopi*, Pl. V, 12 b.

4. *B.S.A.*, Supp. Paper no. 1, Pl. IV c, Pl. X a, i, Pl. XI, B.

5. *L.A.A.A.*, XX, p. 61.

6. *B.M.C.*, Vases, Vol. I, part 2, c. 682=fig. 250.

7. *B.M.C.*, Vases, Vol. I, part 1, A 930=fig. 229. Also Hall, *loc. cit.*, fig. 89.

8. Sherds in the collection of the British School of Archaeology at Athens.

earlier.¹ It is usually found, in those areas of Greece, associated with the wish-bone handle, known both in Cyprus from the earliest Bronze Age days² and in Early Anatolian II.³ Since it is found with well-known Middle Anatolian designs in Macedonia it is there, perhaps, directly of Middle Anatolian origin. It is worth pointing out that, as has been shown,⁴ Early Anatolian II influence appeared in Greece as early as 2400, a fact confirmed by the occurrence of the wish-bone handle, but not the pot-hook spiral, in the Third Thessalian period.⁵ However, since Kamares ware, not to mention Early Cycladic ware, has nothing to do with pottery made in Anatolia west of the Taurus, there can be little doubt that the original home of the pot-hook spiral is east of the Taurus. It may be suggested that its popularity in the north of Greece, greater there than elsewhere, is due to its frequent reappearance, equally more frequent there than elsewhere. However, by whatever routes the pot-hook spiral reached Greece, when it reappears in Macedonian matt painted ware, and quasi-geometric ware in Crete, it is certainly being used by Achaeans. And when it is found painted with solid triangles in glaze paint on a Mycenaean shape (Pl. VIII, 6)⁶ it gives perhaps the very best illustration of what a complex thing Achaean pottery seems to be.

The main conclusion of this paper is that the Achaeans were, to some extent, of the same blood as the Early Helladic people. This may mean that there were Indo-Europeans in the Aegean from the beginning of the Bronze Age. Such a possibility runs counter to existing belief, which, according to Dr. Blegen, holds that the non-Indo-European elements in the Aegean were brought by the Early Helladic peoples. This is, however, doubtful, since it has been shown how similar Early Helladic and Late Helladic peoples appear to be to each other. It is

1. Both these last two observations were made by Mr. Heurtley. *B.S.A.*, Vol. XXVIII.

2. Gjerstad, *loc. cit.*, p. 89, bowl no. 7.

3. Sherds in the collection of the British School of Archaeology at Athens.

4. *L.A.A.A.*, XX, p. 57.

5. Heurtley in *B.S.A.*, Vol. XXVIII.

6. This is a vessel recently acquired (1932) by the Ashmolean Museum. Compare the vessels, *Ath. Mitt.*, Vol. XXXV, p. 21, and Pl. VI. Also Cesnola, *Cypriote Antiquities*, Vol. II, part 2, Pl. XC, no. 778 (in colours). Myres, *Handbook to the Cesnola Collection*, no. 413.

Cf. also Pl. VIII, 7. This is a Cypriote sub-Mycenaean vessel also in the Ashmolean Museum, of approximately the same period and also Achaean (according to the evidence of this paper). The curvilinear decoration in matt paint on this vessel is as unexpected (and logically improper) as are the solid triangles and pot-hooks in glaze paint on the stirrup-vase.

more probable that the flood of immigration of about 2000 B.C., which brought a civilisation different from what was known before and after Middle Helladic times, is to be considered responsible for what is not Indo-European in the Aegean. This will be considered elsewhere; meanwhile, the parallels between Early Helladic and Late Helladic peoples, which extend to ceramic ideas, vaulted tombs, cremation, the use of iron,¹ and perhaps the architectural style of the megaron, show that it is unreasonable to reject the possibility of an Indo-European Aegean at the beginning of the Bronze Age.

Other conclusions are as follows :—

I. While there is certainly a difference between Late Mycenaean 'A' and Late Mycenaean 'B' wares, yet the periods are, to a great extent, interdependent. It is impossible to state when Late Mycenaean 'B' ware begins, though when a Cilician site has been excavated this date may be found. However, since, when that is done, Mycenaean ware of many types may be found, perhaps more than two classes will have to be defined.

II. The Achaeans of the Aegean are closely related to the people of the Hittite Empire, as also to the Ahhijava people.

III. The arguments of armour, dress, etc., that are used by Mr. Thompson to indicate an eastern origin for the Achaeans are supported by ceramic evidence.

IV. The elements of Achaean pottery include the use of matt paint and a rectilinear style. Since, however, the Achaeans adopted the style called Mycenaean as well as certain Oriental styles, their pottery is exceptionally diverse and appears as in a variety of styles, in all of which elements appear in common. It is not so much 'Achaean pottery' as 'Achaean ceramic idiosyncrasy' that must be considered to mark the presence of that people.

1. So far as the employment of iron is concerned, it may be noted that in early days, either in the Aegean or in Egypt, it is a metal usually utilised for small objects of personal adornment. It was rarely used for weapons, and an explanation of this may be that iron requires a treatment which is not easy to discover by chance in order to be serviceable. Briefly, it may be stated that bronze can readily be cast at 1500° C., but that, if iron is similarly cast, it is extremely brittle, and virtually useless except for jewellery, small knives and, possibly, ploughshares. Iron must be heated to about 800° C. and then hammered to avoid the brittle quality.

V. If the early and late Aegean periods are to be coupled as similar in type, much that is of importance in Aegean history (such as non-Indo-European elements in language) is probably due to the intervening period.

NOTE

The writer regrets the numerous omissions in his references to appropriate publications, particularly to such volumes as Mr. Wace's *Chamber Tombs at Mycenae*. Neither at the time of writing the present paper (1932) nor subsequently has he had the opportunity to consult a complete archaeological library, or to revise this paper.



6



7

'ACHAEAN' POTTERY.

Scale—Sherds, 1:2; Vases, 3:8.

Nos. 1-5 are also illustrated in 'The Palace of Minos,' Vol. IV.
Nos. 3 and 4 are not referred to in this paper.

STUDIES IN ARCHAIC GREEK CHRONOLOGY

I. Naucratis

By EINAR GJERSTAD

WITH PLATES IX-X

THE Greek trading factory of Naucratis is considered to have been founded at least as early as 630 B.C., or even 650 B.C., and, in accordance with this dating, the earliest finds from this site have been assigned to the last decades of the seventh century B.C. Petrie and Gardner, the first excavators of the town, were already of that opinion,¹ and since Prinz defended this dating on the basis of a detailed study on the Naucratic finds² this problem has been considered to be definitely solved. The reasons produced by Hirschfeld³ in favour of a later dating—reasons based on an interpretation of the literary material—were disregarded, as was, too, the sceptical view of Hogarth and Edgar.⁴ If, however, the methods of dating are considered, it seems to me that they are not free from objection. The dating material is both literary and archaeological. Both should be considered as dating evidence and both should, therefore, be tested individually, but it is certainly wrong, as Prinz does, to start from the supposition that the style of the pottery found in Naucratis assigns it to the seventh century B.C., and then use this as a proof that the Greek colonization of Naucratis is to be assigned to the seventh century B.C.⁵ In this way, that has been used as a proof which had to be proved.

1. Petrie, *Naucratis*, I, Third Memoir of the Egypt Explor. Fund (London, 1886); Gardner, *Naucratis*, II, Sixth Memoir of the Egypt Explor. Fund (London, 1888).

2. Prinz, *Funde aus Naucratis*, Klio, Beiheft 7, pp. 1 ff.

3. *Rhein. Museum*, XLII, 1887, pp. 209 ff.

4. *B.S.A.*, V, 1898-99, pp. 45 ff.

5. I quote Prinz, *op. cit.*, pp. 37 ff.: 'Um die Zeit des milesischen Stiles festzulegen, sind wir in der Hauptsache auf stilistische Kriterien angewiesen. . . . Auf Grund der

Many problems of Archaic Greek culture depend on the chronology of the Greek colonization of Naucratis: it is one of the fixed points for the chronology of that period. As some new chronological evidence has been obtained by the excavations of the Swedish Cyprus Expedition, I thought it would be worth while to take up this problem for renewed examination.

Let us first consider the literary witnesses. Apart from some doubtful and inconclusive literary references there are two witnesses: Herodotus and Strabo. Herodotus tells us¹: 'Amasis was a friend of the Hellenes. He showed this to several of them but especially by giving the city of Naucratis to such as arrived in Egypt to dwell in, and to those who did not want to live there but only to trade he assigned places where they could erect altars and temene to their gods.'

What does this testimony tell us as regards the date of the Greek colonization of Naucratis? Everybody reading the passage without prejudice will interpret it, I think, in this way: Naucratis existed as a town before the time of Amasis, but, at the time of Amasis, the Greeks became entitled to settle there, build temples, worship their gods and carry on trade, *i.e.* even if Naucratis as a town did exist before the time of Amasis the Greek temples did not.

Strabo, however, has been brought forward against this testimony in order to prove that Naucratis was a Milesian colony in the seventh century B.C. He states that the Milesians founded a fortress at the Bolbitinian mouth of the Nile in the time of Psammetichos I and that, some time later, they sailed up to the Saitic nome and founded the town of Naucratis after they had won a naval victory over Inaros.² Strabo probably mixes up Inaros of the fifth century with these earlier colonizing enterprises, and he is not such a trustworthy author as Hero-

Stilkritik muss man deshalb die milesischen Vasen als Produkte des VII. Jahrh. betrachten. . . .

Für die Geschichte von Naukratis ergibt sich aus den vorhergehenden Betrachtungen, dass schon im VII. Jahrh. milesische Tonware dort in beträchtlicher Menge importiert wurde, und zwar steht Milet mit seiner Einfuhr zahlenmässig an der Spitze. . . . Das reiche Vorkommen der Produkte milesischer Keramik bestätigt das Ergebnis von Kapitel I, dass unter Psammetich I die Gründung von Naukratis durch die Milesier erfolgt ist.'

1. Herodotus, II, 178: 'ὁ Ἀμασις ἄλλα τε ἐς Ἑλλήνων μετεξετέρους ἀπεδέξατο καὶ δὴ καὶ τοῖσι ἀπικνευμένοισι ἐς Αἴγυπτον ἔδωκε Ναύκρατιν πόλιν ἐνοικῆσαι, τοῖσι δὲ μὴ βουλομένοισι αὐτῶν οἰκῆειν αὐτοῦ δὲ ναυτιλλομένοισι, ἔδωκε χώρους ἐνδρῦσασθαι βωμῶν καὶ τεμένεα θεοῖσι.'

2. Strabo, XVII, 801: 'εἰθ' ἢ Πέρσεως σκοπὴ καὶ τὸ Μιλησίων τεῖχος· πλεῦσαντες γὰρ ἐπὶ Ψαμμητίχῳ τριάκοντα ναυσὶ Μιλήσιοι (κατὰ Κναξάρη δ' οὗτος ἦν τὸν Μῆδον) κατέσχον εἰς τὸ στόμα τὸ Βολβίτινον, εἰτ' ἐκβάντες ἐτείχισαν τὸ λεχθὲν κτίσμα· χρόνῳ δὲ ἀναπλεύσαντες εἰς τὸν Σαῖτικόν νομόν καταναυμαχῆσαντες Ἰνάρων πόλιν ἐκτίσαν Ναύκρατιν οὐ πολὺ τῆς Σχεδίας ὑπερθεν.'

dotus. But if his statement is accepted—apart from the probable mistake as to Inaros—I cannot find that it is necessary to consider it as incompatible with the cited passage of Herodotus. It has been thought that the word *χρόνον*—‘some time later’—must be interpreted as indicating that the Milesians left their fortress at the Bolbitinian mouth and founded Naucratis during the reign of Psammetichos I. But such an interpretation is by no means necessary. We have seen that Herodotus says that the Milesians, among others, were allowed to settle in Naucratis in the time of Amasis, and nothing prevents us from interpreting Strabo’s words as referring to a removal from the Bolbitinian fortress to Naucratis, undertaken in the time of Amasis.

The literary proofs, consequently, do not necessarily indicate an earlier date of the Greek colony in Naucratis than the time of Amasis.

Let us now confront the archaeological material with these proofs. It is well known that the site of Naucratis was first excavated by Flinders Petrie in 1884.¹ The excavations were continued by Ernest Gardner the following year.² Finally, Hogarth re-excavated the site in 1899 and 1903.³

A part of the town and several temples were unearthed. The temples were dedicated to Apollo, the Dioscuri, Hera, and Aphrodite, besides which there was found a temple identified with Hellenion, referred to by Herodotus.

It was observed that the south area of the town was distinctively Egyptian in character, while the north area formed the Greek quarter of the town.⁴ It can be proved that the south area represents that part of the town which was earliest inhabited. Petrie himself expressed this opinion,⁵ and Hogarth proved it beyond doubt.⁶

Within the south area there is a burnt bottom layer which is wanting in the north area; the pottery of this burnt stratum does not include any specimens of the Greek wares; above this burnt layer were found specimens of the same Greek wares that are represented in the bottom layer of the north area. It is thus safe to conclude that the south Egyptian part of the town existed some time before the Greeks settled in Naucratis. So much for the general stratigraphical evidence bearing upon the foundation of the Greek colony in Naucratis.

1. Petrie, *op. cit.*

2. Gardner, *op. cit.*

3. *B.S.A.*, V, 1898-99, pp. 26 ff.; *J.H.S.*, 1905, pp. 105 ff.

4. *J.H.S.*, 1905, p. 106. The Egyptian name of the town was Pi-emrô.

5. Petrie, *op. cit.*, p. 5.

6. *J.H.S.*, 1905, p. 107.

We will now examine the chronological evidence of the finds within the Greek quarter of the town. For our purpose, the finds in the temenos of Apollo are of particular interest on account of the stratigraphical observations made by the excavator: Petrie has published a valuable description of the stratification of the site, rather detailed and careful. The levels of the finds are indicated, and he has even recorded these stratigraphical data in a diagram in which the finds and architectural remains are indicated at their respective levels (reproduced in Pl. IX). Thanks to these records, we are in the fortunate position of being able to re-examine the stratigraphical data given by the excavator.

These stratigraphical observations have not received attention from scholars. The favourite attitude of people who had little or no experience of stratigraphy was to be very sceptical of stratigraphical evidence, and Cecil Smith, in the excavation report itself, assumed that attitude in his remarks on the pottery.¹ I am most willing to admit that stratigraphical observations—like all observations—are inconclusive if made by a person who cannot ‘read in the earth.’ But, in our day, it is hardly necessary to point out that correct stratigraphical observation is the only safe method of establishing a chronological sequence of finds. The question, then, is: are the observations correct in this particular case, so that we may rely on the stratigraphical evidence? The answer is in the affirmative. Petrie himself attributes great importance to his stratigraphical observations,² and that he was right in this will be shown, I hope, by the result of my examination. I think, therefore, it is only fair to acknowledge that, if Naucratis can be established as a fixed point for Archaic Greek chronology, it is thanks only to the excellent observations made by the excavator.

The diagram gives a diagrammatic section of the strata mainly in and above ‘the trench of bowls,’ but gives one also of the strata in the other parts of the temenos, including a section through the temenos wall and the preserved remains of the temple wall.

We will first examine the strata in ‘the trench of bowls.’ This is a pit dug into the basal mud which forms the undisturbed bottom layer

1. Cecil Smith in *Naukratis*, I, p. 47.

2. Petrie, *op. cit.*, p. 20: ‘We may hope that in clearing other sites of temples where we shall start on undisturbed ground, with a clear idea of what is likely to be found, and how to maintain the continuous record of all that is discovered, we may be able to obtain a more thorough and complete classification of the age of Archaic pottery. The above will at least give some fresh and useful data for this subject.’

of the Nile mud of the country. This pit was found filled with pottery, fragments of sculpture, etc., constituting broken remains of votive-gifts which had been cleared out of the temple and thrown down in this pit. The votives were sacred and could not simply be thrown away on the ground, like other rubbish, but had to be buried within the temenos in order to keep them from desecration. This custom was very usual.¹

It is evident that the objects found at the bottom of this pit are the earliest, if it can be proved that all the objects were not thrown down at the same time but that the pit was filled gradually. This can be proved. On examining the strata of the 'trench' we find a bottom layer of mud with pottery fragments. On top of this bottom layer there is a sand stratum covering the bottom layer all over the trench and separating it from the upper filling. This stratum evidently represents an accumulation of sand, either drifted or intentionally thrown down after the first burial of the waste votives, indicating an intermediate period, when no rubbish was thrown down into the trench. It is worth while observing that this sand stratum is heaped against the west wall of the trench, probably swept up there by the storms. It is thus safe to conclude that the objects below this sand stratum are earlier than those found above it.

Continuing the analysis we find above the sand stratum a thick accumulation of waste material up to the top of the trench. It is, however, possible to make a further distinction within this filling. The separative mark is supplied by a 'yellow line' which appears in the east part of the trench, but it is not indicated in the other part of the trench either because it was missing there or else was not observed. That this 'yellow line' really marks a division between two filling layers in the upper filling of the trench seems to me evident for the following reasons.

Above the trench and resting on the basal mud from the top of which the trench was dug, was found a 'thick limestone layer' and hard mud; above this, again, is a limestone layer up to about level 300²; limestone chips of a kind similar to those compact beds of limestone chips outside the trench were found in the trench itself; these limestone chips were

1. *E.g.* in the Archaic Artemisia in Ephesus, in the Anat temple in Idalion, in Byblos, Susa, Telloh, etc. Cf. Homolle, *Donarium* in Daremberg-Saglio, *Dictionnaire des Antiquités*, pp. 379 ff.; Thédenat, *Favissae*, *op. cit.*, pp. 1024 f.; Paris, *Elatée*, pp. 141 ff.

2. Petrie, *op. cit.*, p. 13: 'paving of slabs of limestone . . . at about level 300 inches.'

found in two distinct groups, one *below* the 'yellow line' and the other *above* this line. That these limestone chips are fragments of masonry is clearly stated by Petrie himself. How, then, is this to be explained? As far as I can see, the beds of limestone chips outside the trench on top of the basal mud represent remains of two destroyed temple walls, the one originally built on top of the other, and the two layers of limestone chips in the trench itself are waste material from the temple walls thrown down into the trench on the destruction of the temples. The limestone chips below the 'yellow line' are waste material from the first temple, which is represented by the bed of limestone resting directly on the basal mud, and the limestone chips above the 'yellow line' are waste material from the second temple, which is represented by the upper bed of limestone ending at about level 300. That this interpretation is right seems to me confirmed by the fact that there are remains of culture strata partly outside and partly above the trench that can be attributed to these temples.

The lowermost of these culture strata is found outside the trench, to the west, on top of the basal mud, between levels 280 and 290, and is called AII 5 on Petrie's diagram (Pl. IX). The sand stratum of the trench is heaped against this culture stratum, the beginning of which, consequently, is earlier than the sand stratum and contemporary with the bottom layer in the trench. This culture stratum thus belongs to the first temple. Remains of a second culture stratum which is to be connected with the second temple are found between levels 290 and 300, on the diagram marked A.P. 3. This culture stratum is mixed with 'organic yellow sand, much concreted with phosphatic nodules and bones.' This yellow sand suggests connection with the 'yellow line' in the trench, and seems therefore to confirm the theory that the limestone chips found above and together with the 'yellow line' in the trench are remains of the second temple, and that the finds below this 'yellow line' in the trench belong to the first temple.

It is now to be observed that this second culture stratum extends above the trench, showing that the trench must have been full of waste material at the time of the second temple. How is it, then, to be explained that, as stated above, waste matter from this temple was found in the upper filling of the trench? The answer is, that this waste material was not thrown down into the trench while it was open, but was buried in a

1. Petrie, *op. cit.*, p. 13.

pit dug out in the filling, in the same way as waste material from the third and fourth temples was buried in pits dug out in the debris below the floor-levels of these temples (cf. below and Pl. X).

We continue the analysis. On top of the culture stratum of the second temple there is a layer of hard clay, probably a levelling layer for the third temple. Of the walls of this temple remains were found up to about level 310, where, as Petrie states, a bed of limestone chips was found towards the north-west corner of the temenos.¹

The preserved parts of the temenos wall, too, seem to have been built during this period, though, as shown below, this temenos wall was used in the period of the fourth temple as well. An indication that the temenos wall was built at the time of the third temple is given by the fact that its foundations lie at about level 303. The foundation level of the substructure of the fourth temple is 312, nine inches above that of the temenos wall. As this had to support a less heavy pressure than the temple walls, there is no structural reason why it should have been founded so much deeper down in the debris than the walls of the fourth temple, if it was built originally at the same time as that temple. It is, therefore, more probable that it was built at the same time as the third temple.

The culture stratum of this third temple is found just below level 310 and up to level 320, on the diagram marked AII 6. 7 and A.P. 2. In the central part of the trench a pit was dug from the floor-level of the temple in the debris down to about level 295, in the same way as we assumed a similar pit dug from the floor-level of the second temple in the upper filling of the trench. This pit was filled with waste material from the third temple, of the same kind as that found in the corresponding culture stratum (cf. below, pp. 78, 79).

When this third temple was destroyed, a fourth temple was erected on its debris. The floor stratum of the fourth temple is found at about level 327, and on top of this was a culture stratum, on the diagram marked AII 8 and A.P. 1. A piece of the brick wall of the temple was preserved. This rested on a substructure of limestone chips, in which fragments of the third and possibly, also, of the second and first temples were found: material from the earlier temples was naturally used for the substructures of the later temples, and only the absolutely useless pieces were thrown away as waste material into the rubbish pits, as we

1. Petrie, *op. cit.*, p. 15: 'a broad pavement was found . . . at about 310 level.'

have seen above. It is therefore possible that, in this way, even pieces of the first temple, successively, happened to come into the substructure of the fourth temple.

The substructure walls of the fourth temple have their foundations at level 312. It was noticed that the bricks of the temenos wall were of the same size as those of the temple wall, or 14×7 .¹ This affords no proof that the temenos wall was built at the time of the fourth temple, as Petrie proposes; even if the bricks of the third temple were of another size—a thing of which we know nothing—these uniform proportions of the bricks would only show that the temenos wall was used and rebuilt at the time of the fourth temple. That it was originally built at the time of the third temple was made probable above (p. 73).

From the floor-level of this fourth temple a pit was dug out in the debris down to about level 303, just above the pit of the third temple, and this upper pit was afterwards filled with waste material from the fourth temple.

Temples 1-3 seem to have been built of limestone, inasmuch as they were built of stone. The superstructure of the fourth temple, however, was, partly at least, of marble: to this temple belong the marble fragments of columns and entablature illustrated in *Naukratis*, I, Pl. III. The limestone base, and the ends of two column shafts illustrated *ibidem*, are the only remains of the superstructure of the earlier temples which are left, and that only in drawings, for, after having been photographed, they were smashed by the natives. A fragment of a capital, a volute, was unfortunately smashed by a native before it could be photographed. To which of the three temples these fragments are to be attributed it is impossible to state, as the conditions of finding are unknown: they might quite as well have belonged to the first temple as to the second or third (cf. above).

Summing up the stratigraphical data, analysed above, we see that there are remains of four temples: I call them Apollo I, II, III, IV.

The remains of Apollo I consist of fragments of the limestone walls at about level 280: the temple was founded directly on the basal mud of the site.

Remains of the votive offerings of this temple were found in different, stratigraphically distinct, layers: the earliest at the bottom of the trench dug from the floor-level of the temple in the basal mud. A later

1, Petrie, *op. cit.*, p. 15,

deposit was found up to the top of the trench and, as before mentioned, was separated from the earliest deposit by a sand stratum. To these deposits in the trench should be added the finds in the undisturbed culture stratum of this temple, preserved outside the trench at about level 280 and resting on the basal mud. This stratum, therefore, contains finds from the whole period of Apollo I, and corresponds to both the earlier and the later deposits in the trench. An indication that the stratum partly represents the earlier sub-period is given by the fact that the sand stratum is heaped against it. The sand stratum, on the other hand, does not cover the culture stratum, and it therefore seems evident that the last finds in the culture stratum, which cannot, as in the trench, be stratigraphically distinguished from the earliest, are contemporary with the latest deposit in the trench.

The temple was destroyed by fire, indicated by the burnt limestone chips found together with the finds of the latest deposit in the trench.

On top of this destroyed temple a new temple was erected : Apollo II. Fragments of the limestone walls were preserved up to about level 300. The culture stratum is represented by a layer of yellow organic earth, containing remains of votive offerings at about level 290. When this temple was destroyed, chips of the limestone walls and some fragments of votive offerings were buried in a pit dug from the floor-level in the upper debris of the trench.

On top of the debris of this temple a third temple was built : Apollo III. Remains of its walls were found at about level 310. In addition, there were preserved remains of the temenos wall, with its foundations at about level 303. The culture stratum of this temple was successively raised from level 310 to 320. From the floor-level a pit was dug in the earlier debris, and contains waste of votive offerings of the same kind as those in the culture stratum.

This temple, too, was destroyed and on its debris was erected a fourth temple: Apollo IV. The upper brick structure of the temenos wall was probably rebuilt. The preserved substructures of the temple walls had their foundations at about level 312, and the culture stratum was found up to about level 330. From the floor-level a pit for burial of waste votive offerings had been dug down to about level 300 and contained finds of the same kind as those in the culture stratum (cf. pp. 78, 79).

The section on Pl. X illustrates this stratigraphical analysis. It

is copied from Petrie's diagram; only, the foundation trenches for the walls and the limestone beds mentioned in his description but not marked on his diagram have been added at levels 300 and 310 (cf. pp. 71, 73).

It is true, this analysis of the architecture and the stratification, based on the facts recorded by the excavator, does not agree with his own interpretation and the generally accepted opinion.

It may seem audacious to attempt a new explanation of the stratigraphical data without personal knowledge of the excavation, but, on the one hand, the excellent stratigraphical records of the excavator allow, so far as I can see, of a reliable reconstruction of the stratification, and, as mentioned below, the excavator himself admits that there are difficulties involved in the interpretation suggested by him.

Sir Flinders Petrie postulates two Apollo temples: the first and the second temple. This assumption is not based on any other evidence than the fact that there were found architectural remains of two different materials: marble and limestone. To the second, or marble temple, Petrie attributes the preserved remains of the temenos wall and the substructure of the temple which I have attributed to Apollo IV. This substructure was built of limestone chips which Petrie considers to be remains of the first, or limestone temple. But the stratigraphical position of this first temple is not determined satisfactorily, as Petrie himself admits. Petrie considers that the first temple 'stood nearly as high as the second temple,'¹ and thinks that it rested on an artificial mound of muddy sand which was observed below the temenos wall down to the basal mud, and, furthermore, 'that the thick bed of limestone chips at level 312 to 327, in which the fragments of the first temple were found, are just the smashings of the first temple *in situ*, bedded down into and flattened to form the pavement for the second temple.'

As far as I can see, this interpretation is against the stratigraphical evidence obtained by the excavator, and, as a matter of fact, Petrie himself was aware that the interpretation seems to be somewhat unlikely. I cite his own words: 'only the considerations that it (*i.e.* the artificial mound) would raise it (*i.e.* the temple) to an awkward height, and that the rubbish trench would hardly have been cut so deep behind it in that case, renders this idea less likely.'

Petrie is quite right in stating that there is no possible explanation of the fact that the trench was dug from the top of the basal mud, if

1. Petrie, *op. cit.*, p. 13.

the floor-level of the 'first' temple was to be five feet higher up and rest on an artificial mound of muddy earth. On the other hand, if the level of the first temple was on top of the basal mud at about level 280, as I have proposed, the excavation of the trench from the top of the basal mud is natural. Furthermore, and still more conclusively, the location of the 'first' temple does not tally with the stratigraphical evidence as given in the diagram. The muddy earth, referred to by Petrie, was, as is shown by the diagram, found below the temenos wall only, perhaps also below the substructure of the 'second' temple, as Petrie states in his description (*op. cit.*, p. 12), but, as shown by the diagram, this muddy earth was not above the trench and not within the area next to it. Within this area, on the contrary, the strata consist of culture earth and debris up to the level of the last temple, and these strata are partly dug through by pits from the different floor-levels, as described in the stratigraphical analysis given above. It is natural to suppose that the earlier temples did not extend so far as the later temples: this is a feature well known from various other temple-sites successively enlarged.¹ Thus it is quite natural that the earth below the walls of the later temples was more or less sterile, consisting of the muddy earth observed by Petrie.

Another explanation of this muddy earth seems to me, however, still more probable. As this muddy earth was found below the temenos wall—and possibly below the later temple walls too—I find it very plausible to interpret it as the remains of decomposed mud-brick walls of the earlier temples.

Finally, it has been proved that the capital belonging to Petrie's first temple dates from about the middle of the sixth century B.C.² In respect to this, only two possibilities are open: either the 'first' temple is not the earliest, or else the Greek colonization in Naucratis did not begin before about the middle of the sixth century B.C. As the latter alternative is impossible, only the first can be accepted.

In consequence of these difficulties, which result from Petrie's interpretation and, on the other hand, from the fact that an analysis based on his own statements has revealed architectural remains combined with four successive culture strata, I think that the evidence is in favour of the interpretation suggested by me.

1. *E.g.* the temene of Aphaia in Aigina, the Archaic Artemisia at Ephesus and the temple-site at Ajia Irini in Cyprus.

2. Weickert, *Typen der archaischen Architektur in Griechenland*, pp. 86 f.

A further corroboration of the correctness of my interpretation is given by the fact that the stylistic development and the chronological sequence of the different pottery classes found in the subsequent strata are entirely consistent with what we know about this development and

	A 1	A 2	A 3	B 1	B 2	B 3	B 4	B 5	B 6	C 1	C 2	C 3	C 4	C 5	D 1	D 2	D 3	D 4	D 5	
APOLLO IA			×			×	×												×	
APOLLO IB	×		×			×	×	×	×	×	×			×					×	×
APOLLO IC								×	×										×	
APOLLO IIA										×								×		
APOLLO IIB						×				×					×					
APOLLO IIIA	×									×	×									
APOLLO IIIB													×					×		
APOLLO IVA																×				
APOLLO IVB	×			×	×	×	×				×		×							

	J 1-4	K 1	K 2	K 3*	L 1	L 2	L 3	M 1†	M 2†	N	O 1	O 2	O 3	O 4	O 5	O 6	O 7	P	Q
APOLLO IA					×	×												×	
APOLLO IB	×				×						×	×	×		×			×	×
APOLLO IC	×				×							×	‡					×	
APOLLO IIA					×						×								
APOLLO IIB					×						×	×	×			×			
APOLLO IIIA					×						×							×	
APOLLO IIIB			×	×	×					×	§		×						×
APOLLO IVA								×	×		×								
APOLLO IVB			×		×	×		×	×	×				×				×	×

* Black Figures of Amasis style (*Naukratis*, I, p. 18).

† Black Figures with brilliant glaze incised. Ordinary Black Figured ware (*Naukratis*, p. 18, Pl. XLIV).

‡ Polemarchos (*Naukratis*, I, p. 18).

§ Phanes (*Naukratis*, I, p. 18).

this sequence from other sources. I shall, therefore, proceed to an examination of the pottery finds.

The three stratigraphical divisions of Apollo I, represented by the culture stratum and the layers below and above the sand stratum, I shall call Apollo IA, B, and C; the culture stratum of Apollo II and the deposit in the presumed pit dug from the floor-level of this temple are

called Apollo IIA and B ; the culture stratum of Apollo III and the deposit in the pit, dug from that floor-level, are called Apollo IIIA and B ; while the culture stratum of Apollo IV and the deposit in the pit, dug from that floor-level, are called Apollo IVA and B.

	F 1	F 2	F 3	F 4	F 5	F 6	F 7	F 8	F 9	F 10	F 11	F 12	G 1	G 2	G 3	G 4	G 5	G 6	G 7	H 1	H 2
A																					
B	×	×				×			×				×	×		×	×	×	×		
C	×					×			×				×	×							
IA	×													×							
IB	×	×				×			×		×		×	×				×			
IIA		×			×	×			×				×	*	×	*					
IIB	×					×				×			×	*	×	*	×				×
IVA		×																			
IVB	×	×		×	×	×			×				×	×							

* Eye-bowls (*Naukratis*, I, p. 18).

	Q 3	Q 4	Q 5	Q 6	Q 7	R 1	R 2	S 1	S 2	T	U 1	U 2	V 1	V 2	W 1	W 2	W 3	W 4	X 1	X 2
A			×										×							
B								×		×			×				×			
C			×										×							
IA												×								
IB										×	×								×	
IIA				×					×											
IIB								×		×		×	×							
IVA									×											
IVB		×				×			×					×			×			

To this stratigraphical division it should be observed that all the strata can be considered as pure except Strata IIB, IIIB and IVB, which probably are, to a certain extent, intermingled, as Pit IIB was dug down into IC, and Pit IVB was dug straight above and, as it seems, partly down into Pit IIIB.

The distribution of the pottery classes, for which I here use the classification of Petrie, is best illustrated by the diagram above and on preceding page.

Before we can draw any conclusions from this stratigraphical distribution of the different pottery classes, we have to identify them with those of modern classification. We must restrict ourselves to an identification of the most significant wares, those which can be identified either from the illustrations given of them, or from the description given of their characteristic features.¹

C 4 seems to be 'Fikellura' ware, characterized by its typical double crescent pattern, as there is no indication that the pottery might be from Clazomenae, where this pottery, as we know, is represented too; D 4 seems to belong to the same class on account of its typical fret ornament.

F is the Naucratic ware. F 3, 7, 8 were not found in levelled layers and need not, therefore, be taken into consideration here. F 1 and 2 is the typical Naucratic ware of Class A, the 'Naucratic Chalice Fabric,' covered with a white slip and decorated with geometrical ornaments and figural representations in the style which shows relation to the Rhodo-Milesian style of the outline technique. F 4 represents the later stage of the Naucratic ware, Class 2, probably under Clazomenian influence, and is identified by the statement that it is decorated with 'brown figures.' G 1 and 2 are Rhodo-Milesian bowls decorated with birds, eye-ornament, etc. G 3 is the later Rhodo-Milesian ware, with incised patterns, probably influenced by Corinthian ware. H 2 is a similar ware: 'White-faced, with animals and spots,' or possibly the Naucratic ware, Class B. J is the Rhodo-Milesian pinax fabric. K 2 is early Attic Black-Figured ware: according to Beazley and Payne, from the end of the seventh century B.C.² K 3 is Attic Black-Figured ware: according to Petrie, of 'Amasis' type. L 1 is the 'Ionian Bowl' fabric. M 1-2 is, according to Petrie, the ordinary 'Black-Figured ware and Black Figure with applied red.' O 2 is the earlier Rhodo-Milesian ware, represented by the Polemarchos Crater. O 4, on the other hand, seems to include the later phase of the Rhodo-Milesian ware (boar-dishes), or possibly the later phase of the Naucratic ware, Class A.³ R 1 is a ware with 'black and red figures, incised,' probably Corinthian or early Attic Black-Figured ware. S 2 is Laconian Black-Figured ware. T is Rhodo-

1. In the classification of the different wares found in Naucratis I follow mainly the classification proposed by Elinor R. Price in *J.H.S.*, XLIV, 1924, pp. 180 ff., and East Greek Pottery, in *Classification des céramiques antiques*, 13 (Union académique internationale).

2. *J.H.S.*, XLIX, 1929, p. 254.

3. Cf. *J.H.S.*, XLIV, 1924, p. 199, fig. 30; Pl. X, 8-9.

Milesian ware, pinakes of the well-known style. V 1-2 is the later phase of the Rhodo-Milesian ware, with incised silhouette figures, probably influenced by Corinthian ware. V 1 belongs to the 'Ionian Cup' fabric.

The other classes are less certain as regards definite identification, less significant and without importance for the general chronological sequence.

If we now observe how these wares are stratigraphically distributed, we find that the Naucratic ware of Class A is represented in every layer, from the lowest to the uppermost. But Petrie states that 'generally the plainer varieties are earlier, and the patterned later,' and the only certain specimens of the late phase of the style (F 4) do not appear before Apollo IV (or possibly Apollo III, as they were found in the pit of Apollo IV; cf. above). The early Rhodo-Milesian ware occurs in Apollo I-II, but the pinakes (T) continue until Apollo III. The earliest representatives of the incised Rhodo-Milesian ware (U) appears, according to the diagram, in Apollo II, but according to Petrie's statement (*op. cit.*, p. 20) one specimen was found at the level of the Polemarchos vase, *i.e.* the close of Apollo I. The later, rougher specimens (U 2), at least, occur in Apollo II-III. The 'Ionian Bowl' fabric is represented in every stratum, but, of the Rhodo-Milesian bowls (G 1-2), the eye-bowls do not appear before Apollo III, and the same holds good for H 2, whether this be the Naucratic ware, Class B, or a variety of the late Rhodo-Milesian ware. The 'Fikellura' ware, too, does not appear before Apollo III. To the same period belong the first specimens of the early Attic and Laconian Black-Figured wares, while the later Attic Black Figure (K 3, M 1-2) are not represented before Apollo IV.

Summing up this stratigraphical distribution of the representative wares and their chronological sequence, we find that Apollo I-II form one main period and Apollo III-IV a second main period. The first period is characterized by the predominance of early Naucratic and Rhodo-Milesian wares together with the beginning of an influx of the incised Rhodo-Milesian ware. In the second period the composition of the pottery classes is different: specimens of the later phase of the Naucratic and Rhodo-Milesian wares (eye-bowls, etc.) appear; the 'Fikellura' fabric, or possibly Clazomenian ware, is represented; early Attic Black-Figured pottery marks the beginning of the period (Apollo III), and the late Attic Black-Figured ware characterizes the end of the period (Apollo IV).

Turning now to the question of absolute dates we have the following fixed points.

The architectural fragments of Apollo IV (the 'second' or marble temple) are assigned by Dinsmore to about 520 B.C., and Weickert accepts this dating.¹ Apollo IV was, consequently, erected shortly after the Persian conquest. It seems likely, therefore, that Apollo III was the temple destroyed at this conquest, and this tallies with the fact that the 'Phanes vase' was found in Apollo III. Phanes, who dedicated this vase, can with great probability be identified as the traitor of that name who, before the Persian conquest, deserted to the Persians.² The vase dedicated by him must therefore be pre-Persian, and consequently the temple of Apollo III is pre-Persian.

The architectural fragments of limestone, dating from about 550 B.C. according to Weickert, do not help us with the chronology, as we do not know to which of the three earlier temples they belong (cf. above).

The next chronological fixed point is given by the Cypriote sculptures of limestone and terra-cotta found in Apollo Ic. These sculptures can, on the Cypriote evidence, be dated to about 550 B.C. or shortly before—in any case, not earlier than about 570 B.C.³ The temple of Apollo I cannot therefore have been destroyed earlier than that date. There remains the date of the erection of the temple and its earliest finds represented by those of Apollo Ib. A chronological fixed point for dating these earliest finds is, again, given by specimens of Cypriote sculpture found in the stratum of Apollo Ib, the bottom stratum of the trench. There are two such pieces of sculptures recorded: one 'small, very archaic female head' found below the sand stratum in the central part of the trench (see Petrie's diagram) and a male terra-cotta head with conical helmet 'found in the lowest sand stratum of the trench, below the Polemarchos vase level' (*op. cit.*, p. 14).

The female head is not illustrated, so it is not possible to judge of its style, but that it is Cypriote can hardly be doubted, since all the other sculptures found in the trench were Cypriote. The male head is illustrated (*Naukratis*, I, Pl. II, 5), and it is therefore possible to ascertain its style and date. This head is not earlier than 570 B.C. This dating is based on the results of the excavation of the stratified layers of sculp-

1. *B.C.H.*, XXXVII, 1913, p. 15, n. 1; Weickert, *op. cit.*, p. 129.

2. *Herodotus*, III, 4.

3. Forthcoming publication of the Swedish Cyprus Expedition.

tures found in the temple-site of Ajia Irini (cf. the forthcoming publication of the Swedish Cyprus Expedition). This terra-cotta head is therefore approximately contemporary with the sculpture found in Apollo Ic. It is therefore evident that a long time cannot have elapsed between the erection and the destruction of Apollo I and, consequently, that all the temples succeeded each other at short intervals. Since the only datable object among the early votive offerings of Apollo I can be assigned to about 570 B.C. it is impossible to date the erection of this temple before 600 B.C. This is the earliest date possible.

It may seem unlikely that three temples should have been erected within the short period of about seventy-five years, but we have to take into consideration that at least two of these temples were destroyed by a catastrophe: Apollo I by fire and Apollo III by the Persian invasion. It is obvious that such catastrophes may happen soon after the erection of the buildings. Moreover, the temples with mud-brick walls and only foundations of stone were not of a solid construction; and, as a matter of fact, we know by actual examples that such temples succeeded each other at rather short intervals.¹

Let us now compare this archaeological evidence with the literary testimony. Which of the two interpretations of that testimony best tallies with the archaeological evidence: that which assigns the Greek colonization of Naucratis to about 630 B.C.-650 B.C., or that which assigns it to about 570 B.C.? As far as I can see, the archaeological evidence is in favour of the latter alternative. As pointed out above, there is no archaeological reason to put the erection of the first temple before 600 B.C. On the other hand, it is not at all impossible to assign the erection of this temple to about 570 B.C., as its destruction may very well have happened as late as 550 B.C. or shortly before. In this case, the three earliest temples would have been erected within the space of fifty years. True, this is a short time, but in consideration of the arguments given above, one not at all impossible.

The point, then, is this: The archaeological evidence allows us to assign the erection of the first temple to a date as late as 570 B.C. and one as early as 600 B.C., but not earlier. The only literary testimony which

1. *E.g.* the Heraion temples in Olympia, the primitive structures (A-C) of the Artemis temple at Ephesus which have not lasted longer than about seventy-five years in all; furthermore, the three successive archaic sanctuaries of the temple-site at Ajia Irini, etc.

tallies with this archaeological evidence would oblige us to decide on dating the erection of the temple at about 570 B.C. I think, however, that we should not squeeze the testimony of Herodotus too much, bearing in mind that we cannot pretend that he has given an absolutely incontestable date for the beginning of the Greek colonisation of Naucratis, even if the interpretation of his statement as given above seems the most natural. Consequently, it seems to me fair to admit that we cannot, for the moment, do more than state that the erection of the first temple must have taken place at some time between 600-570 B.C., possibly as late as 570 B.C., possibly as early as 600 B.C. Which of the two possibilities is the right one will be decided by further researches.

In consequence of the arguments given above, I propose the following approximate dates of the Apollo temples :—

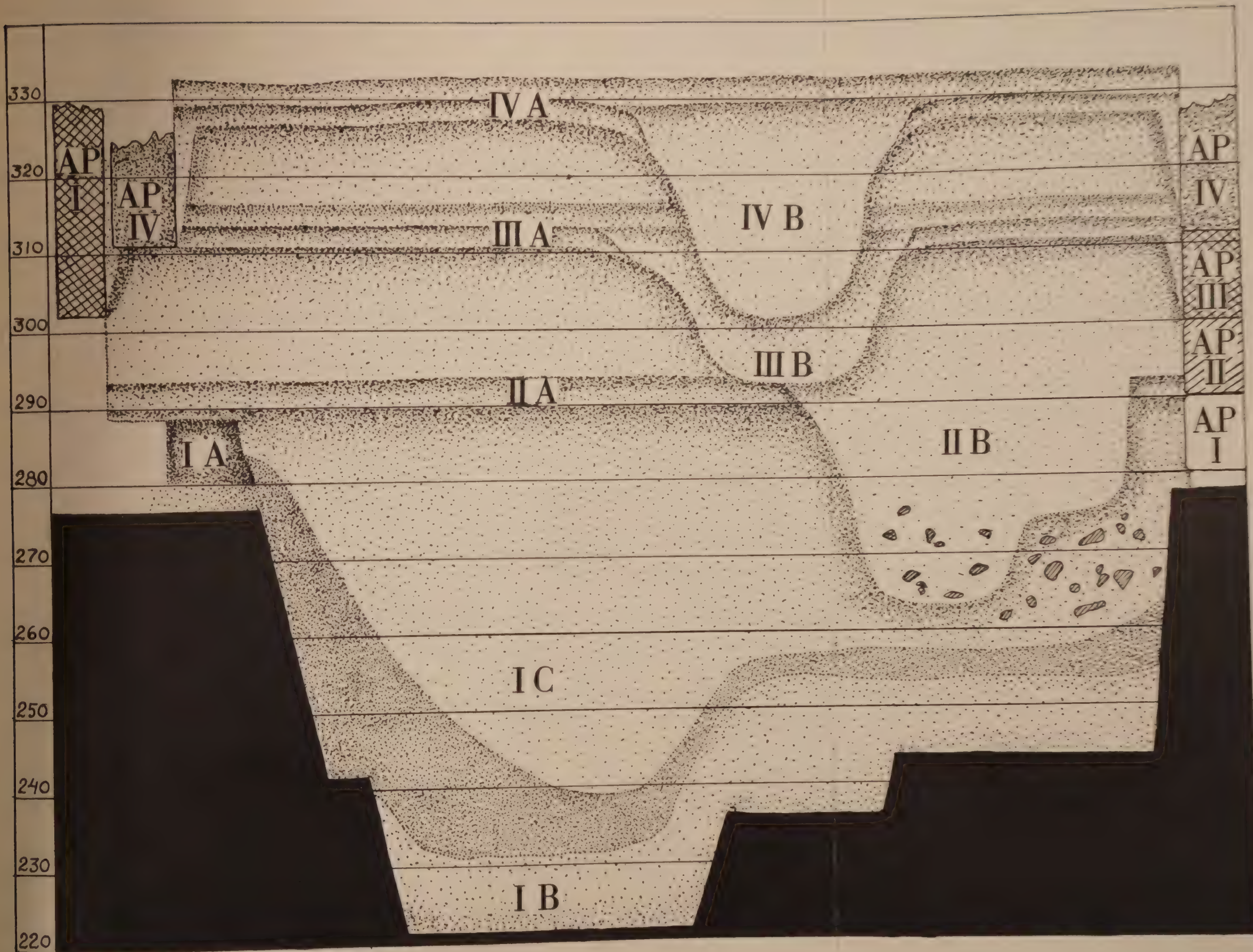
Apollo I	. c. 570-555 B.C. or 600-570 B.C.
Apollo II	. c. 555-540 B.C. or 570-550 B.C.
Apollo III	. c. 540-525 B.C. or 550-525 B.C.
Apollo IV	. after c. 520 B.C.

In another article I hope to deal with another fixed point for Archaic Greek chronology, viz. the finds in the Archaic Artemisia at Ephesus.

Level	Temenos Wall	Close by stone well	West of central part	Nearer central part	General series, in and over trench	Central part over trench	East side of central	Near preceding	Extreme E	
330		Brilliant			Chips of black and buff ware, black figures					
320	Wall	incised ware Drab handle chips P. and O.	2nd lamp?		with brilliant glaze, incised; and curve-rimmed black bowls AΠ ⁹		D ² F ² O ² S ² (AP ¹)			
310	Temenos		Pavement of		White faced thin ware with red lines inside and red figures (Naukratian) F cocked-hat lamp Eye bowls from mid and northern part AΠ ^{6,7}		A ¹ C ¹ E ¹ F ¹ G ¹ L ¹ O ¹ P ¹ Q ¹ S ¹ (AP ²) Eye bowls			
300	Dusty				Small delicate terra cotta heads } southern part and lead weight }	Brilliant incised A ¹ B ¹ C ¹ D ¹ E ¹ F ¹ G ¹ H ¹ I ¹ J ¹ K ¹ L ¹ M ¹ N ¹ O ¹ P ¹ Q ¹ R ¹ S ¹ T ¹ U ¹ V ¹ W ¹ X ¹ Y ¹ Z ¹ (AΠ ¹⁴⁰)			AP ³ vanishes	
290	mud under				Hard clay Organic yellow sand much concreted with phosphatic nodules and bones AΠ ⁵	C ⁴ D ⁴ E ⁴ F ⁴ G ⁴ H ⁴ I ⁴ J ⁴ K ⁴ L ⁴ M ⁴ N ⁴ O ⁴ P ⁴ Q ⁴ R ⁴ S ⁴ T ⁴ U ⁴ V ⁴ W ⁴ X ⁴ Y ⁴ Z ⁴ Soft yellow paste sacred eye square (AΠ ¹⁴⁹) Eye bowls	Yellow line (AP ³) C ¹ F ¹ G ¹ L ¹ O ¹ U ¹	Blue glazed bowl (AP ³⁰⁰)	at further E. and AΠ ¹⁴⁰ lie on limestone layer	
280	wall down to basal		(AΠ ⁵⁵) A ³ B ³ C ³ D ³ E ³ F ³ G ³ H ³ I ³ J ³ K ³ L ³ M ³ N ³ O ³ P ³ Q ³ R ³ S ³ T ³ U ³ V ³ W ³ X ³ Y ³ Z ³ Level of sand AΠ ¹ or perhaps older as AΠ ¹ is heaped against it	Sand extends out of trench westward. Below the sand	Pottery glazed figures and animals Bone figure (organic stratum is only 3 ins thick, very sharply defined, most productive at rather E. of the middle, rises to the N. end) Black pottery. D.4		L ¹ (AP ⁵⁰)	E (AP ³⁰⁰)	Thick limestone layer and hard mud	
270	mud						chips O ³ (AP ⁴⁰)	Yellow line & mud B ³ F ³ G ³ L ³ O ³ U ³ (AP ⁴⁰)		
260					Perfect lamps, tube centre type. Lekythi. legs of statues, some in sand at F ¹ G ¹ L ¹ Q ¹ AΠ ⁴		limestone	much burnt limestone with dried pieces unfinished & charcoal		
250					Archaic terra cotta heads Limestone pan		Yellow line (AP ³⁰) C ¹ D ¹ F ¹ G ¹ L ¹ O ¹ U ¹ X ¹			
240					Legs and feet of figures in limestone Pinax ΑΠΟΛΛΩΝΟΣ ΕΜΙ AΠ ³	B ³ F ³ G ³ L ³ P ³ Q ³ V ³ (AΠ ³⁰) Sand AΠ ¹ oinochos with inscrip. 2 porcelain hawk's Small very archaic female head	Fragments of lion bowl PL. 3 on Sand A ³ F ³ G ³ L ³ (AP ²⁰)	Sand (AP ³⁰⁰)		
230					Two terra cotta horses from a group AΠ ²	A ³ B ³ C ³ D ³ E ³ F ³ G ³ L ³ (AΠ ²⁰⁰) O ³ T ³ P ³ V ³ W ³ Much B ³		Mud B ³ G ³ O ³ T ³		
220					ΠΟΛΕΜΑΡΧΟΣ vase (PL. 3) and coarse red pottery lying on and in Sand stratum a few inches thick A ³ B ³ C ³ D ³ E ³ F ³ G ³ H ³ I ³ J ³ K ³ L ³ M ³ N ³ O ³ P ³ Q ³ R ³ S ³ T ³ U ³ V ³ W ³ X ³ Y ³ Z ³ fragments of incised oinochoe, pale drab Layer of mud with fragments	organic stuff and pottery C ³ D ³ L ³ O ³ (AΠ ²⁰⁰) Fine mud, fishbones and charcoal, small chips of red and a glazed black bowl L ¹ O ¹ S ¹ (AΠ ²¹⁰)				

AΠ¹.....⁹, AΠ¹⁴⁰, AP¹ &c refer to temporary designations of strata by which the pottery was marked.

A¹...²³ to X¹...² refer to classes of pottery described in the classification.



THE NINEVEH OF TACITUS

BY R. W. HUTCHINSON

WITH PLATE XI

IN the thirteenth chapter of the twelfth book of Tacitus' *Annals* occurs the following sentence: 'Sed capta in transitu urbs Ninos, vetustissima sedes Assyriae, [et Arbela] castellum insigne fama, quod postremo inter Dareum atque Alexandrum proelio Persarum illic opes conciderant.' The words 'et Arbela' are absent from the better manuscripts but were restored by some editors from the Codex Agricolaë, a manuscript not altogether free from interpolations. Bekker gives 'et Arbela' a qualified approval, and suggests 'et' alone as a possible variant on the grounds that (i) it is inconsistent to speak of Nineveh as both 'urbs' and castellum, and (ii) Darius was defeated near Gaugamela in the province of Arbela. The second of these readings is the one adopted by Furneaux and by Goelzer.

I shall try to support the better manuscripts by suggesting that 'castellum' was quite a proper term for the Nineveh of Tacitus' day, and that the words 'et Arbela' or even 'et' alone are not merely unnecessary but actually spoil the sense. The battle between Alexander and Darius was probably fought near Keramleis (Gaugamela), only four hours' march from Nineveh and very much nearer to it than to Arbela.¹ Indeed, the fight would probably have been known as the battle of Nineveh but for the fact that the latter city was already in ruins in 331 B.C., whereas Arbela was still a flourishing city.

The earliest and best account we possess of Assyria from a Hellenic point of view is contained in the history of Herodotus: he also wrote some 'Assyrioi logoi' which were used by Aristotle but have not been preserved. But Nineveh had been destroyed more than a hundred and fifty years before he wrote, and so he tells us much less about it than he does of Babylon.

In 401 B.C. Xenophon with the Ten Thousand passed by the ruins, and he remarks on the conglomerate which forms the base of the walls

1. For arguments against Keramleis, see Rich, *Residence in Koordistan*, Vol. II, p. 25 and Appendix I.

at one point. He did not know the city had been Nineveh, but calls it Mespila (a name that may be the origin of Mosul). Alexander and his Macedonians were probably equally ignorant. Strabo, however, has a very good idea of the topography of Assyria, though his knowledge of its history is smaller than that of Herodotus. Both writers use 'Ninos' for the name of the city as well as for that of its founder. The reason why the site had become known again will be made apparent later.

But why should Tacitus describe the city of Nineveh as a 'castellum'? Do not the two definitions contradict one another? Let us consider the meaning of 'castellum.' Philologically it means of course 'a little camp,' but in practice it always conveys the idea of permanency. If the word is applied to a Roman work it usually means a fort built to house a cohort milliaria or a cohort quingenaria.¹ Caesar often uses the word both of Roman and of Gaulish works. It is applied (*De Bello Gallico*, VI, chap. 31) to the camp where Caesar left his wounded and stores in the charge of Quintus Cicero. The fact that a whole legion was stationed there as a guard, apart from the wounded, shows that this particular castellum was much larger than the usual one. Its name Atuatuca seems to imply that the Romans had on this occasion occupied the tribal stronghold of the Atuatuca, and that it was a hill camp we might possibly infer from the words 'reliquos aditus locus ipse per se munitioque defendit.' Is this perhaps the same place where the tribesmen had formerly gathered to resist the Romans as described in Book II, chap. 29: 'cunctis oppidis castellisque desertis sua omnia in unum oppidum egregie natura munitum contulerunt'? Here castellum would appear to mean a Celtic hill-fort of the camp of refuge type. But the sense of 'castellum' as used by Caesar varies a little. In Book II, chap. 8, in the phrase 'ad extremas fossas castella constituit ibique tormenta collocavit,' the word 'castella' seems almost the equivalent of 'machine-gun posts.' On the other hand, the castellum whence Caesar led four cohorts in Book VII, chap. 87, was presumably of legionary size. It seems therefore that the word means a strong post, but could never mean 'a fortified city.'

There is no reason to suppose that Tacitus uses it in any very different sense. In *Annals*, Book XV, chap. 3, he uses it of the garrison posts left by Corbulo to guard his water supplies, and in Book XV, chap. 17, of Vologeses' advanced posts which he promised to withdraw across the Euphrates. We have therefore some reason for supposing that in our

1. 'The standard fort of the first and second century is about 2½ acres in extent, being designed for a garrison of 500.' (R. G. Collingwood, *The Archaeology of Roman Britain*, p. 25.)

passage Tacitus implies by *castellum*, a fortified post large enough to hold a cohort *quingenaria* or perhaps even a legion as its garrison.

From personal knowledge of the site I submit that there are only two positions which fulfil these conditions. It is absurd to suppose that by *castellum* Tacitus means the whole area enclosed by Sennacherib's walls, some eighteen hundred acres in extent,¹ still less likely that he speaks of the city of Mosul which was probably unfortified and of little importance at that date.

Within the walls of Nineveh are two great mounds: Quyunjik, the prehistoric tell surmounted by the palaces of Sennacherib and Ashurbanipal and by the temples of Ishtar and Nabu, and Nebbi Yunus, the smaller mound crowned by the arsenal of Sennacherib and Esarhaddon. The latter site has never been excavated (with the exception of some insignificant shafts), but Quyunjik was the seat of a flourishing Parthian village, founded in or shortly before the reign of Mithridates the second (124-88 B.C.), and thereafter continuously occupied, apparently, till the period of the Tartar invasions. As regards the fortification implied by our phrase, the terrace walls built by Sennacherib must still measure some seventy feet high (at a guess) on the side overlooking the Khosr, and were doubtless far more conspicuous and imposing when Meherbates occupied the site. The Parthians who had access to Persian and Mesopotamian records may possibly have revived the ancient names, which Xenophon did not associate with these walls.

The hitherto unpublished aeroplane photograph on Plate XI was taken by the Royal Air Force, and I am indebted to the Air Ministry for permission to publish it. It shows very clearly the wall that Sennacherib built round his new capital with its fifteen gates: three on the north side, six on the east, one on the south and five on the west side, and the two great Assyrian towers, one at the gate of Nergal on the north side and another on the east by the gate of Shamash.²

The great mound of Quyunjik is visible adjoining the west wall and partly encircled by the little river Khosr which flows across the city from east to west. The group of pits on the southern corner of the mound indicate the position of Sennacherib's palace, those on the northern corner that of the palace of his grandson Ashurbanipal. Between the palaces

1. See *A Century of Exploration at Nineveh*, p. 125, by R. Campbell Thompson and R. W. Hutchinson, hereafter referred to as *C.E.N.*

2. See *C.E.N.*, plan I and chap. VI, especially pp. 127-30; also *Archaeologia*, LXXIX, pp. 103-48; I am indebted to the courtesy of Dr. R. Campbell Thompson in allowing me to publish the aeroplane photograph.

lay the temples of Ishtar and Nabu. The subsequent Parthian village seems to have covered most of the surface of the mound.

South-east from Quyunjik and also adjoining the city wall may be seen the smaller mound of Nebbi Yunus, in Assyrian times the military headquarters and now the seat of a flourishing village. The name Nebbi Yunus ('prophet Jonah') is derived from its sacred mosque, which contains, according to the local tradition, not only the bones of Jonah but also those of the 'whale.' The latter can be seen and are, so I understand, those of a sword-fish (I do not know when the 'whale' tradition began; the book of Jonah, it will be remembered, merely speaks of a great fish). The mottled effect on Nebbi Yunus is produced by the roofs of the modern village which has expanded a little westwards beyond the limit of the walls. The prominent white tracks are modern roads and cart tracks, but some at least must overlie Assyrian roads. The innumerable fields and other evidences of cultivation are interesting but I cannot date them; very many, however, are invisible to one who walks over the surface of the ground. The curving line in the west corner of the photograph represents an old flood bank of the Tigris but was never, I imagine, a bank of that river under normal conditions.

In Meherbates' time Nineveh was probably somewhat more populated than it is to-day, but there was certainly no great city there. Tacitus could never, I believe, have used 'castellum' to describe the whole area within the walls, but must have intended by that word either the Parthian village of Quyunjik perched on its Assyrian terrace-walls or a similar (but hypothetical) village on the mound of Nebbi Yunus. In favour of the latter site is the fact that the name Nineveh still clings to it, and that Olivier who visited it towards the end of the eighteenth century knew it as Kalla Nunia. Ibn Batuta, too, in the fourteenth century, speaks of visiting 'Ninawa,' whereby he seems to refer to Nebbi Yunus, but Rabbi Benjamin of Tudela in his account of his voyage there (1160-1173 A.D.) uses Nineveh in its proper sense to include the whole area within the ancient walls and speaks of several villages within it.

The city derived its name from the Sumerian goddess Nina; the eponymous hero Ninos appears first in Herodotus, was unknown in Assyrian records, and must be accounted as a fiction.

I suggest therefore that 'urbs Ninos' refers probably to Quyunjik, or alternatively, but less probably, to Nebbi Yunus, and that whichever be the true solution there is no occasion to amend the text of Tacitus.



NINEVEH FROM THE AIR.
Scale approx. half an inch to one mile.
*Royal Air Force Official—Crown copyright reserved.
By permission of the Air Ministry.*

THREE NORTH SYRIAN TERRA-COTTAS

By D. B. HARDEN

WITH PLATE XII

THE terra-cotta figurine illustrated in Pl. XII, 1, was purchased by Sir Arthur Evans at Sotheby's in 1933¹ and presented by him to the Ashmolean Museum, Oxford. It presents two features of such exceptional interest—gold earrings, and a gold boss in the navel—that it has seemed worthy of detailed publication, together with two similar pieces which have been in the Museum for some years. As the two latter are known to have come from North Syrian sites, there can be no reason to doubt a similar provenance for the Evans example, although all details of its finding are lost.

The Evans figurine (H. 0.148 m., W. 0.049 m.) is made of buff clay, and is of the bird-headed type, with a body flattened in front and behind. The head is in two planes. At the back is the flat-topped headdress, pierced by two holes in the angles, and below it, in the same plane, are the ears, each pierced by a hole which still contains a circular earring. These earrings are made of solid gold wire with overlapping ends, and are circular in section and thickest in the middle. In the front plane is the face proper, in high relief, with a protruding, wedge-shaped nose and no chin. On either side of the nose are added blobs with hollow centres, representing eyes, and above the nose, in the forehead, is another deep-set hole. Each of these holes shows traces of having been filled with insets. The neck is tall and plain, but at the base, in front only, is an added strip of clay with transverse incisions, representing a necklace. The arms are short and stumpy, ending in a point; the hips are prominent, and below them the legs, which are solid, taper to a small rectangular 'plinth' foot. The division between the legs is marked by a vertical incision back and front. On the body, both back and front, are single rouletted lines crossing each other diagonally from the shoulders to the hips, and below them, also both back and front, are three horizontal

1. Sotheby & Co., sale catalogue (antiquities), July 27, 1933, lot 171 a. The figurine is wrongly described in the catalogue as 'in stone.' Ashmolean Museum, no. 1933.1182. The other figurine in the same lot (Ashmolean Museum, no. 1933.1183) is also a nude goddess, but is fragmentary and of much later date, betraying evidence of Greek influence.

rouletted lines representing the pudenda. The navel is filled with a plain spherical stud of terra-cotta covered with gold foil.

The first of the two similar figures (Pl. XII, 2, H. 0.106 m., W. 0.041 m.), which lacks the right tip of its headdress and the lower part of its legs, and is, for the rest, rather badly rubbed and weathered, comes from Selemieh, north of Homs, and is very similar to the Evans piece.¹ They differ, however, in that the present example has two added blobs of clay below the necklace, apparently to represent breasts; its navel is made of an added blob of clay pierced by a deep hole; there are only two lines of rouletting across the pudenda; the back of the figure is plain except for the dividing line between the legs; and the whole, instead of being flat both before and behind, is plano-convex.

The second (Plate XII, 3, H. 0.164 m., W. 0.053 m.) was purchased at Aleppo by Mr. C. L. Woolley.² It, too, differs from the Evans piece in several minor details. The clay is fired red; the body is flat behind and convex in front; the headdress is taller and narrower, and the holes in it are closer together; the ears are pierced by two holes each, instead of one, and the earrings are lost; the necklace is composed of two strips of clay instead of one, and there is besides a plain bronze ring on the neck; the body and leg markings are on the front of the figurine only; the filling in the navel is lost, and there are more than three lines to mark the pudenda.

Doubtless numerous examples of this type from other North Syrian sites exist, but it does not seem to have received in print the attention it merits, for search in the available literature has produced only two direct parallels.³

The first is a fragment comprising a head and neck differing in no single feature from the Aleppo piece. It comes from Mishrifé (anc. Qatna).⁴ The second comes from the excavations of Fathers Abel and Barrois at Neirab near Aleppo.⁵ It also is fragmentary, being the body

1. Ashmolean Museum, no. 1913.450.

2. Ashmolean Museum, no. 1914.109.

3. Two further examples, both from Zenjirli and both now in Berlin, are mentioned and illustrated by A. Moortgat, 'Ein Basaltidol aus churrischem Bereich,' *Zeitsch. für Assyriologie*, XLI (1933), p. 215, Pl. VI. These were unfortunately noticed too late for insertion in the text. The head of the first is like that of the Selemieh piece except in some minor points, but its body is unusual. It has elongated hips and very stumpy legs, and the pudenda are marked by a stippled circle. The second resembles the Aleppo example in every detail except that it has no bronze neck-ring and there is an additional deep-set hole on each side of the face above the holes for the earrings. The earrings are not preserved on either specimen.

4. *Syria*, IX, pp. 87-8, Pl. XXXVI, 5.

5. *Syria*, IX, pp. 310-11, fig. 13a and Pl. LXXI f.

only of a figurine with an added necklace, stumpy arms, navel-hole, and rouletted markings; these markings vary slightly from those on the Ashmolean specimens.

But the existence of even these five closely allied pieces shows that this variety of nude figurine must have been both common and stereotyped in the North Syrian area.¹

In neighbouring lands figurines of a nude goddess of bird-headed aspect are quite common and vary considerably in shape and ornamentation. The Mesopotamian varieties, which date back to the third and fourth millenniums B.C., are well illustrated in Mrs. Van Buren's *Clay Figurines of Babylonia and Assyria*, figs. 1-15, 19-21, and 34-39. Of these, figs. 35-36, from Nippur, and fig. 37, of unknown provenance, are most nearly akin in shape of body to the North Syrian type, while fig. 15, from Asshur, bears the greatest (though still not a very great) facial resemblance to it. All these figurines are dated by Mrs. Van Buren to the early part of the third millennium B.C. Parallels from the archaic Ishtar Temple at Asshur are illustrated by Andrae,² but they all differ from our North Syrian type in having complete arms and hands and in numerous other details. Still further removed from our type are the figurines from the Al Ubaid II level at Ur published by Woolley.³ In a word, though nude, bird-headed goddesses are amongst the commonest varieties of terra-cotta figurines found on Mesopotamian sites of the third and fourth millenniums B.C., we can trace no more than a distant relationship between any types there and our figures.

More nearly akin, especially in one important detail—the earrings—is a type found at Tell Ta'anek in Palestine.⁴ It is ascribed by Vincent to the end of the second millennium B.C. The head is very similar to our type, except that it bears no headdress. The ears are pierced by two holes each, and three of these four holes still contain circular earrings of clay; the eyes are added blobs, with a second blob in the centre to represent the pupil; the nose is a triangular wedge. But from there downward resemblance between the Ta'anek and North Syrian types

1. Bronze figurines with ears pierced by earrings are also known from North Syria. See Contenau, *La civilisation phénicienne*, fig. 69, p. 210. In the figurine in question the ears are each pierced by two holes, just as on our terra-cottas.

2. W. Andrae, *Die archaischen Ishtar-tempel in Assur*, Pls. LI-LV.

3. C. L. Woolley, 'Excavations at Ur, 1929-30,' *Antiq. Journ.*, X, Pl. XLVIII a-d.

4. E. Sellin, *Tell Ta'anek*, p. 80, fig. 113; Vincent, *Canaan*, p. 164, fig. 108 (after Sellin). Two other examples are figured in Contenau, *La déesse nue babylonienne* (1914), figs. 110-11.

is not specially marked. The body of this example is peculiarly small; the arms are long, and the hands are roughly indicated across the stomach; the pudenda are marked by sloping incisions. The legs, which are mostly missing, were joined together, and divided only by an incised line.

I have been unable to trace other examples of this Palestinian type, though they doubtless exist.

Very similar pieces, however, are quite common in Cyprus. They are, indeed, almost identical with the Ta'annek type, and equally removed with it from the North Syrian. A list of nine examples is given by Winter.¹ The type-specimen is one in the Piot collection, published also by Perrot and Chipiez.² The head is identical with the Ta'annek example, except that only two clay earrings are preserved. The body, however, is more fully treated here; the breasts are marked by protrusions; the arms are curved rolls of clay with hands close together holding some circular object on the stomach; the usual incisions mark the pudenda; and the legs are again not separated except by an incised line. The other examples listed by Winter differ in no important point from the Piot specimen. At least three of them have earrings still preserved.

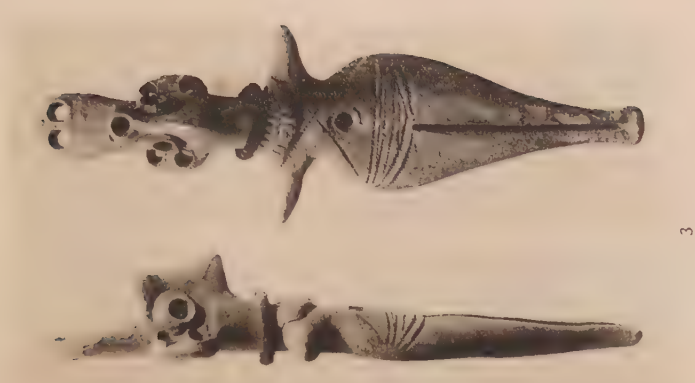
According to Myres,³ the Cypriote examples are akin in fabric to the so-called 'Base-ring' ware of the later Bronze Age, and are to be dated to the latter half of the second millennium B.C. This date accords well with the date ascribed to the Ta'annek example and, despite the differences in detail already noted, the North Syrian pieces are sufficiently like the Cypriote and Palestinian ones to warrant their ascription to about the same date. Evolutionally they are perhaps earlier. The most important similarity from that point of view is the beaked nose with blobs on each side for eyes; the most important difference from the same point of view is the extension of the arms in Cyprus and Palestine to full-length appendages. This suggests that the North Syrian type is probably earlier and belongs to the first part of the second millennium B.C.⁴ It would be unsafe to try to pin it down within narrower limits until evidence from scientifically excavated sites can be brought to bear on the problem.

1. F. Winter, *Typen der figürlichen terrakotten*, I, p. 18, fig. 4.

2. Perrot and Chipiez, *Histoire de l'art*, III, p. 553 (English edition, *Phoenicia*, Vol. II, p. 150, fig. 99).

3. J. L. Myres, *Handbook of the Cesnola Collection* (1914), p. 335.

4. Moortgat, *op cit.*, comes independently to a similar conclusion, for he would ascribe them to the middle of the second millennium B.C.



TERRA-COTTA FIGURINES FROM NORTH SYRIA.
Scale—approx. 1:2.

RAS SHAMRA

PAR RENÉ DUSSAUD

DEPUIS 1920, les fouilles ont pris en Syrie une ampleur remarquable. Celles de Byblos et de Ras Shamra ont donné des résultats qui renouvellent entièrement notre connaissance de la civilisation phénicienne au II^e millénaire B.C.

Le site de Ras Shamra, à 11 kilomètres au nord de Lattaquié (Laodicea ad mare) représente une ville antique de l'âge du bronze, peut-être l'Ugarit des tablettes d'el-Amarna. A 800 mètres à l'ouest de la ville, un port naturel, Minet el-Beida, a fait la fortune de l'antique cité qui fut, avant tout, un entrepôt commercial placé au point de départ de la route menant à Alep et en Mésopotamie.

Chronologie du Site.—Six campagnes de fouilles ont été conduites, de 1929 à 1934, tant à Ras Shamra qu'à Minet el-Beida, par M. Claude F. A. Schaeffer, conservateur-adjoint du Musée des Antiquités Nationales à Saint-Germain, assisté de M. Georges Chenet.¹

Trois niveaux ont été bien déterminés. Le troisième, qui n'est pas le plus profond, n'a pu être atteint que par un sondage, à une profondeur de 12 mètres à partir de la surface du tell de Ras Shamra ; il est donc encore mal connu. Toutefois, il remonte au III^e millénaire B.C. et se caractérise par une variété de cette céramique proto-iranienne que l'on a désignée à Suse sous le nom de 'style 1 bis.' Par là, nous voyons que les Cananéens n'étaient pas encore installés à cette date à Ras Shamra.

L'apparition des Sémites est très nette dans le deuxième niveau dont l'épaisseur atteint 7 mètres et dont la céramique est presque entièrement constituée par de la vaisselle cananéenne du Moyen Bronze. Dans ce niveau on a trouvé plusieurs monuments égyptiens datant de la XII^e dynastie.

1. Rapports préliminaires de chaque campagne par M. Schaeffer dans *Syria*, depuis 1929. Tirages à part accompagnés des textes chez Paul Geuthner.

Le premier niveau, très voisin de la surface, n'a guère que 2 mètres d'épaisseur. Il est caractérisé par un apport de céramique chypriote de la seconde moitié du II^e millénaire et bientôt aussi par une importation de céramique mycénienne. Certains vases mycéniens comme décor, forme et matière, sont identiques aux vases découverts à Rhodes ; ils portent les mêmes marques de potier. Ce premier niveau a fourni quelques monuments égyptiens du Nouvel Empire, notamment la stèle consacrée par un certain Mami à Baal Saphon, certainement postérieure à 1350 B.C.

Au premier niveau de Ras Shamra correspond la vaste nécropole qui entoure le port de Minet el-Beida et qui comporte quelques tombes construites sur plan rectangulaire en bel appareil, voûtées en encorbellement et précédées d'un court dromos. Ce type de tombes, avec son riche mobilier mycénien, atteste la venue à Ras Shamra d'un important contingent de population égéenne, on peut même dire achéenne. Aussi n'est-il pas surprenant qu'Ugarit figure parmi les alliés des Hittites qui entrent en lutte contre Ramsès II à la bataille de Qadesh.

Dès ce moment, l'accord qui régnait à Ras Shamra entre Khurrites ou Mitanniens, gens de Chypre (Alasia), Anatoliens ou Hittites, et Phéniciens, fut probablement rompu et ces derniers expulsés. La situation s'aggrava lors de l'invasion des 'peuples de la mer' vers 1200 B.C. Les nouveaux envahisseurs ont dû utiliser Ras Shamra comme une de leurs bases pour progresser vers le sud. Nous avons probablement un témoignage de leur installation dans le fait que les grandes tablettes dont nous parlerons dans un instant, et qui constituaient la bibliothèque royale de Ras Shamra, ont été brisées et les fragments utilisés pour construire de petits murs. La destruction définitive de Ras Shamra doit être attribuée à Téglatphalasar I, vers la fin du XII^e siècle, lorsqu'en réaction contre l'envahissement des peuples de l'ouest, il s'empara d'Amurru.

En résumé, le troisième niveau correspond au III^e millénaire, le deuxième niveau va du début du XX^e siècle au milieu du XV^e siècle, le premier niveau du milieu du XV^e siècle à la fin du XII^e.

Les quatrième et cinquième niveaux qui ont été reconnus cette année, nous reportent donc à une très haute antiquité.

Les textes.—Si abondant et si varié que soit le matériel archéologique mis au jour à Ras Shamra et à Minet el-Beida (céramique, stèles votives,

sculptures en pierre, ivoires, bronzes, deux coupes en or richement décorées), l'intérêt qu'il présente est dépassé par les textes que les fouilleurs ont découverts dans le premier niveau. Ce sont des tablettes en terre cuite gravées de caractères cunéiformes, les unes en langues sumériennes, akkadienne, khurrite, les autres en un dialecte sémitique qu'on peut définir comme proto-phénicien. Ces dernières, de beaucoup les plus nombreuses, sont rédigées dans un système alphabétique.

On ne saurait trop admirer la sagacité des déchiffreurs qui, sans le secours d'une bilingue, sont parvenus à fixer la valeur des caractères de cet alphabet, en premier lieu M. Hans Bauer dont l'intervention a été décisive, puis, pour les rectifications et compléments, MM. Dhorme et Virolleaud, qui ont abouti parallèlement à des résultats semblables. M. Dhorme a, le premier, publié une traduction des textes découverts en 1929 ; M. Virolleaud a assumé la publication des tablettes découvertes les années suivantes.

Les textes en caractères cunéiformes alphabétiques sont de deux ordres. Les uns, généralement écrits sur de grandes tablettes, paraissent se rapporter à la bibliothèque que constitua Niqmad, roi d'Ugarit. Cette collection renfermait aussi des textes sumériens, akkadiens et khurrites. Un fragment, au jugement de M. Virolleaud, appartenant à la série d'el-Amarna, on peut faire remonter cet ensemble au XIV^e siècle. Toutefois, puisque le nom de Niqmad n'apparaît pas dans les tablettes d'el-Amarna, il est vraisemblable que ce roi est contemporain de la fin du règne d'Aménophis IV ou même postérieur à ce pharaon.

En dehors des tablettes rédigées pour la bibliothèque de Niqmad et qu'on distingue par la finesse de l'écriture, on a découvert d'autres tablettes d'écriture moins soignée, ayant trait à des usages courants : lettres, litanies, listes de sacrifices, etc., qui peuvent descendre jusqu'à la fin du XIV^e siècle : on constate que la langue s'est chargée de mots étrangers, probablement khurrites. Il ne convient donc pas, comme on l'a proposé, de définir la langue des grandes tablettes épiques comme étant la langue d'Ugarit.

Nombre d'épisodes rapportés par ces grands textes nous ramènent soit à Tyr et Sidon, soit même plus au sud dans la région d'Ashdod, de Qadesh Barnéa et même de la mer Rouge. Un des principaux héros de l'épopée phénicienne est Kéret qui devient roi de Tyr et de Sidon, mais dont l'activité a pour théâtre précisément le Negeb ha-Keréti, le Negeb de Kéret, ce qui témoigne que cet ethnique n'a aucun rapport avec la

Crète. Puisque les légendes ancestrales des Phéniciens se localisent dans le sud de la Palestine, il en résulte que ce peuple en était originaire, ce qui confirme le témoignage d'Hérodote.

Le Commerce.—Le primitif Canaan est donc bien, comme l'atteste Sophonie, II, 5, le pays des Philistins et le Negeb. De là les Phéniciens sont partis vers 3000 B.C. pour occuper Tyr, Sidon et Byblos, d'où vers 2000 ils ont poussé jusqu'à Ras Shamra. La quantité d'objets en or que les fouilles de Byblos et de Ras Shamra ont mis au jour, atteste qu'un des éléments essentiels du trafic phénicien consistait dans le commerce de l'or et c'est pourquoi les Phéniciens ont occupé la route d'Ashdod au golfe d'Aqabah jusqu'à l'invasion des Philistins. Si, pour transiter entre la Méditerranée et la mer Rouge, les Phéniciens ont préféré l'isthme d'Aqabah à l'isthme de Suez, c'est que la route d'Ashdod à Esiongeber passait entièrement sur leur territoire et se trouvait à l'abri des incursions égyptiennes. On en conclura que les expéditions maritimes au pays d'Ophir, entreprises par Salomon avec l'aide de Hiram, marquent la fin d'une vieille tradition maritime chez les Phéniciens. L'amplitude du commerce phénicien vers le nord atteignait la Syrie du nord et la Mésopotamie par la route qu'ouvrait la possession de Ras Shamra.

D'après les textes comme d'après les objets sortis des fouilles de Ras Shamra, les Phéniciens importaient en ce point l'or d'Ophir, les parfums de l'Arabie, les produits de l'Égypte et de la Phénicie. Parmi les produits d'exportation, bois, cuivre, esclaves, il faut mentionner aussi les chevaux, car M. Virolleaud vient de publier des fragments d'un traité vétérinaire phénicien prescrivant les soins à donner aux chevaux malades.¹

La Religion.—Les tablettes de Ras Shamra nous révèlent la mythologie et le culte des Phéniciens au II^e millénaire B.C. Le dieu suprême est le dieu El ; les déesses principales sont Ashérat, dite aussi Elat, puis 'Ashtart et 'Anat. Celle-ci est particulièrement active ; mais rien ne se fait sans l'ordre de El et le pays des Phéniciens est dit ' la terre de El toute entière.'

Huit héros divins, fondateurs de villes ou conquérants, correspondent aux huit Cabires phéniciens des auteurs classiques. Quand les Phéniciens

1. *Syria*, 1934, p. 75.

s'installèrent au Liban, ils adoptèrent le grand dieu local Hadad qui a de tout temps régné sur les hautes cimes du Liban, dieu qui déchaîne la foudre et les eaux bienfaisantes ; mais ils le désignèrent simplement sous le nom de Baal, le 'maître' par excellence. La concordance que les nouveaux textes offrent avec les renseignements de Philon de Byblos est telle qu'on ne peut douter que les nouveaux poèmes nous révèlent les antiques légendes phéniciennes, non toutefois dans la version de Sanchoniaton, mais dans celle plus ancienne de Thabion. A Ras Shamra même M. Schaeffer a identifié un temple de Baal et un temple de Dagon.

Puisque, jusque vers la fin du II^e millénaire, les Phéniciens ont occupé tout le sud de la Palestine, jusqu'à la mer Rouge, ils ont été en contact intime avec les Israélites bien avant que ces derniers ne pénétrèrent dans la Terre Promise. Cela explique mainte particularité des récits concernant les patriarches israélites, par exemple que El soit le grand dieu des patriarches. Dans les légendes phéniciennes de Ras Shamra, Térah—que l'Ancien Testament attribue pour père à Abraham—joue un rôle important ; c'était primitivement un dieu lunaire, ce qui explique les relations avec Harran et avec Ur en Chaldée que la Genèse lui attribue.

Dans le poème dit de Kéret, roi des Sidoniens, on trouve mention de deux tribus israélites : Asher comme alliée des Phéniciens et Zabulon comme leur ennemie.¹ Dans un autre texte inédit, M. Virolleaud signale la présence du dieu Yav ; mais il faut s'attendre à des discussions à ce sujet, car si nous y trouvons une confirmation de l'opinion de M. Langdon,² par contre M. Hans Bauer y voit une divinité différente de Yahvé.³

Conclusion.—Parmi les révélations apportées par les fouilles de Ras Shamra, la plus importante est, sans contredit, le contact qu'elles attestent entre les légendes ancestrales phéniciennes et les légendes patriarcales israélites. Pour la première fois, les biblistes possèdent sur la période pré-mosaïque une documentation externe.

Le résultat immédiat est de montrer que les légendes patriarcales n'ont pas été inventées de toutes pièces au temps des rois de Juda et

1. Virolleaud, dans *Revue des Études sémitiques (Revue des Études juives)*, 1934, fasc. 1 ; cf. *Syria*, 1934, p. 125.

2. Voir *Revue de l'Histoire des Religions*, 1932, I, p. 247.

3. Hans Bauer, *Zeitschrift für die alttestam. Wissenschaft*, 1933, p. 93.

d'Israël. L'unique argument qu'on avançait, à savoir le manque d'une écriture pour transmettre d'anciens récits légendaires, tombe de lui-même en présence des tablettes de Ras Shamra qui ont été écrites au XIV^e siècle avant notre ère, mais qui ne représentent que des copies de textes plus anciens, établies sur l'ordre du roi d'Ugarit.

JERICHO: CITY AND NECROPOLIS

Fourth Report

VI. *The Palace Area (continued).*

Palace and Store Rooms. M.B. ii.

Pottery and Houses. L.B. i.

Upper Stone Building. E.I. i.

BY JOHN GARSTANG, M.A., D.Sc., HON. LL.D., F.S.A.

WITH PLATES XIII-XLIV

AND A NOTE ON AN INSCRIBED TABLET AND FIG. 2

BY SIDNEY SMITH

(*In continuation of Reports published in 'Annals,' XIX, pp. 3 ff.;
pp. 35 ff.; and XX, pp. 3 ff.*)

As intimated in the previous report (*Annals*, XX, p. 3), we interrupt at this stage the further description of the tomb-deposits in order to give precedence of publication to the materials recovered in 1932-33 from the Palace Area. A list of the tombs excavated in 1933, of which publication is thus deferred, appears in *Annals*, XX, at the foot of the schedule facing Pl. I, and includes tombs numbered 20, 21, 30, 31, 32, 35, 40, 41 and 42. Of these only an interim account of Tomb 31 has yet been given (*Annals*, XX, p. 8), but students desiring to consult the records of the others may do so at the Liverpool Institute of Archaeology. In this report we include for comparison in Fig. 4 (nos. 6 and 7) drawings of two scarabs from Tomb 30.

THE PALACE AREA

Explorations of previous years having disclosed the existence of a stratified area covered by Iron Age deposits, work in 1933 was concentrated upon this spot. It is located mostly in Square I 6, together with parts of Squares H 5, 6 and I 5 of our general site plan published in *Annals*, XIX, on Pl. IX, and comprised the steep slope overlooking the

spring, together with some of the high ground at the top. From Sellin and Watzinger's detailed plan of the area as excavated by them,¹ it can be seen that they had already disclosed a large stone building of exceptional strength and plan, generally known as the 'Hilani,' a name adopted for convenience in this report though the implied analogy is misleading.

Photographs already published show the appearance of this area and the building in question at the beginning of 1932, and other photographs reproduced herewith (on Pls. XL ff.) illustrate the progress of our work at various levels. The uppermost building is to be seen in outline on Pl. XIII, whereon a composite plan shows the other buildings encountered at successive depths, details of which are illustrated in the succeeding plates. From the statement of results published in the last report (*Annals*, XX, p. 41) it will be gathered that the materials recovered were both instructive and very plentiful; this was particularly the case in the lowest levels, so that in the present report we must be content to give a general summary of the nature of the Palace storerooms and their contents, and, by way of illustration, the details of one group of rooms. The painted pottery from the Late Bronze Age stratum is, however, completely figured in our plates, as well as the type specimens found in our earlier examination of the area, including the vicinity of the M.B.i tower.

THE STRATIFICATIONS

After making allowance for irregularities and complications described later, the area excavated was found to comprise three main strata separated by layers of destruction and burning.

The *Upper Stratum* of the area was largely occupied by the 'Hilani' building (Pl. XIII); and, to the north of this, a four-roomed house (H 6).

The *Middle Stratum* was covered generally by a deep layer of black burnt debris under which were extensive pockets of white ash, overlaid to the west by a double destruction and attrition layer of fallen reddish brick. This proved to be formed by the ruins of the east wall and superstructure of the Palace itself (no. 80 in Pl. XV), and it descended the slope as a visible streak, which got gradually thinner. It was also interrupted to the east by a brick house (M. in Pl. XIV) which occupied about a quarter, or with its 'court' (M. III) about a third, of the whole

1. Excavations on the Quell-hügel, Sellin and Watzinger, *Jericho*, 1913. Pls. 15-18, with plan on Tafel IV.

area. This stratum was defined throughout by numerous fragments of painted sherds, shown in Pls. XXVII-XXXIX, and other pottery objects, and to it belong the strong stone walls AA and BB, and their later continuation CC, on Pl. XIV.¹

The *Lower Stratum* (Pl. XV) was almost wholly occupied by buildings, which included, to the west, part of the Palace; and, down the slope eastward, an associated series of storerooms which extended as far as, and apparently at one time beyond, the older tower and rampart of M.B. i. In the NW. of the area it comprised a detached group of small rooms 61-63 (called area 60), and to the south it was bounded, so far as the excavations of 1933 were concerned, by a flight of cobbled steps, shown in the plan.

The storeroom deposits of this stratum subdivide also into three levels which were called locally *a*, *b* and *c*, though the topmost of these was only meagrely represented by the preserved architectural remains. Soundings through the lowest floors of several of the storerooms disclosed the presence of a fourth level anterior to this building, but pertaining to the same culture-epoch, namely, Middle Bronze ii, which included the Hyksos period. These four levels, *a*, *b*, *c*, *d*, are represented in the sectional view of Rooms 40 and 41 at the top of Pl. XVI.

Irregularities in the stratification presented themselves as the work proceeded, and proved perplexing at the time. The great weight of the uppermost building prepared us for exceptionally deep foundations, and these had indeed penetrated in places as far as the lowest stratum, which was consequently much disturbed in its upper levels. But an exceptional complication arose from the fact that the construction of the building in the Middle Stratum, which we call for brevity the M. or Middle Building (the M. system in the plan of Pl. XIV), had also terraced into the destruction layer of the lower buildings, as may be seen in the section E-F on Pl. XIV, including part at any rate of the destruction layer of the Palace itself, and yet in places was overlaid by a similar layer of brick debris with its seemingly earlier pottery contents.

A further complication arose from the great difference of actual level between features of the same stratum or building. For example, after removing the 'Hilani' the lower rooms 71 and 72 came to light at the same time as the later walls of the M. building, and were accordingly

1. These letters are here used as local indications and have no relation to the Walls of the City, similarly labelled in earlier reports.

registered as in area M. II, collaterally with the rooms of the latter, which formed the group M. I, 'M' being the letter which served to designate the stratum as a whole. As work proceeded it became clear that the floor levels of M. II belonged to the Middle Bronze Age, while the M. building represented the Late Bronze Age; and for this reason, for the purposes of this report, the M. II series has been renumbered 70, and its various rooms 71, 72 and 73 collaterally with other storerooms of its real stratum. This will explain the double numbering of some of the specimens in the plates. At the same time the four-roomed house in Square H 6 was being dug and proved to belong to the Iron Age.¹ The 'Stratigraphic Method' applied to sloping ground presents obvious difficulties and disadvantages.

EARLY IRON AGE

BUILDINGS AND POTTERY. The rooms of the 'Hilani' which occupied a good portion of our topmost stratum proved to have been previously excavated, and the student is referred to the descriptions published by Dr. Watzinger in the work already quoted. It was a massive structure, with walls four to six feet thick, and its foundations descended in places through our middle stratum so deeply as to disturb the upper levels of our lower stratum. The former excavations, doubtless following the walls down in search of the floor levels, actually recovered objects of Middle Bronze Age character, as is apparent from the original notes on this piece of work which Dr. Watzinger courteously supplied for the use of our expedition. Some such specimens are figured in his report, *e.g.*, *inter alia*, those shown on his Pl. 29, no. 17 (cf. our Pl. XXIV, no. 22); and on his Pl. 30, no. E 8 (cf. our Pl. XXV, no. 6); also the goblet, his Fig. 115, A 1 (cf. our Pl. XXI, no. 1), and a pedestal, Fig. 120 (cf. our Pl. XXVI, no. 11), types which will be immediately recognised as coming from the Palace storerooms. The middle stratum was naturally more fully represented, as witness the fragments of painted pottery shown in his Fig. 123 on p. 123, with which compare the specimens illustrated on our Pl. XXXVII. Other specimens found inside the rooms of this building were, however, characteristic of the Iron Age, and include those shown on his Pl. 35, no. A 36, on Pl. 37, nos. B 3 and B 6.

1. This house had already been largely excavated, and its plan is given by Sellin and Watzinger, *op. cit.*, Tafel IV.

The disturbance indicated is, however, not wholly recent; in our own work there was removed from the debris of 'Hilani' Room 1-2 (the party wall having disappeared) a Cypriote fragment, shown on Pl. XXXIX, 1, which has been found to fit on to two other fragments taken from different levels in the stratum below, viz. Area M. III (Pl. XIV), which significantly does not immediately underlie the upper find-spot, as may be seen by reference to Pl. XIII. All these fragments really pertain to our middle stratum, which evidently was already much disturbed in antiquity by the construction of the upper building.

The 9th century date originally assigned by the excavators to this building is now regarded by Dr. Watzinger as subject to revision, collaterally with other previous conclusions: 'The "Judaic" layer, equated with the time of "Hiel," is dated too late in the book. . . . Quite at the end of our Jericho stay we came upon this building . . . the excavation of which was not completed. The brick walls under the big building we only just fixed, without going to the depths. According to the finds the big building may be of Late Bronze Age, and the walls beneath it will certainly belong to a house of earlier date.' It is abundantly clear how the incompleted excavation might point to this conclusion, for the bulk of the finds within the building were of Late Bronze Age character, and such was also our experience (cf. Pls. XXVII, 2; XXVIII, 1; the Cypriote piece, XXIX, 5; XXIX, 6, 7 and 9).

For the reasons stated above, it is not possible to rely upon the evidence of the detached fragments of pottery found in the room areas for the dating of the 'Hilani' building. Happily the lower limit of date was ascertained when removing the walls, from the fragments actually bedded in the structure. These included the fragment of a strainer vase (Pl. XXIX, 3) taken from the wall of Hilani Room 3; and three separate lots of sherds, including Late Bronze and Iron Age fragments from the foundation of a wall of Room 1; Bronze and definitely Iron Age fragments from a wall of Room 7, and other Iron Age specimens from another wall of the latter room. On account of the importance of these indications, the last deposit was submitted to an independent expert opinion which confirmed us in assigning it to the Early Iron Age. Thus the walls of the Hilani building cannot have been constructed before the beginning of the Iron Age; but our own work throws no further light upon its actual date.

Certain general indications in this connection may, however, be worthy

of consideration. The total absence of 'Philistine' and sub-Mycenaean wares (L.M. III, b) from the context of this building almost precludes a date early in the Iron Age; while, on the other hand, the exceptional strength and solidarity of its masonry suggests its independence of any rampart wall, such as the restored brick wall of Early Iron Age ii, of which there are traces in the north-west of this city. The expression 'Hilani' by which we designate this building should not prejudice the issue, for any similarity in ground plan with the typical Hilani of Hittite Syria and Mesopotamia does not bear detailed examination. The steep slope of the ground, and consequent differences of level, precludes the possibility of an entrance in the middle of the longer side, typical of the Hilani: this building was probably approached by a stepped way from the south, some features of which, together with its broad foundations, were disclosed in Square I 5. It is more comparable with the great building in the SE. corner of Büyük Kalë at Boghaz-Köi, uncovered in the resumed excavations of 1931-32 upon that site by Bittel and Güterboch,¹ but again the complete analogy seems to break down with the lateral extensions of the Jericho building, about the contemporaneity of which, however, there is room for doubt.² Clearly the evidence for dating this building is insufficient; but in view of the various finds and the historical considerations that may be adduced it may be surmised that it formed one of the block-houses erected in the 10th century B.C. by David or Solomon to protect his eastern line of communications.

To the south and east of the building just described the Iron Age stratum was all denuded; and to the west, over the site of the Palace (Pl. XIII), the ground had been previously turned over. North of this an earlier trench had also cut through to the lower levels, at the point where the outer wall of the Palace (in Square H 5) may be seen to come to an end. North of this again (as shown by dotted lines in Square H 6 of the plan, Pl. XIII) appeared a four-roomed house, which though already partially excavated yielded consistent evidence of its Iron Age origin, a welcome and decisive landmark for our deeper excavation of the spot. The round-bottom juglet figured on Pl. XXIV, 2, was among the specimens recovered from this building, coming from Room 4 of the series.

1. *M.D.O.G.*, Dec. 1933. No. 72. Abb. 5-6.

2. A photograph of the south-east corner shows a break and change of masonry at this point of extension. Cf. *Jericho*, Pl. XVI, a.

THE LATE BRONZE AGE

This STRATUM comprised the upper levels of the rooms in Area 60 (Pl. XIII) and the buildings shown in the Plan on Pl. XIV. Of these the earliest feature was the heavy stone wall, labelled AA, the foundations of which descended as far as a secondary floor level and pavement of Room 43 in the lower stratum. It was a massive structure, suggesting in plan and strength a re-entrant gateway. Attached to it, and continuing its line, but later in date, was the wall BB, brick on stone foundations, which also preserves a re-entrant feature. Thirdly, came the continuation CC, also of brick on stone foundations, somewhat raised in level. The line of this extension can be seen in Pl. XIII to be heading towards the south corner of the Palace: and its foundations are shown in Watzinger's Plan running transversely through 'Hilani' Room 7 (cf. our Pl. XIII). Our sections of 1932 show it plainly overlying the earlier destruction layer of the Palace wall (the 'Streak'), here more than half a metre deep; and further examination in 1933 at the point of abutment of walls C and B showed the same 'Streak' (here much thinner) to have been sharply interrupted by the deeper foundations of the latter. The west wall of the M. building abutted against, or was interrupted by, the continuation wall CC.

No other surviving structures can be assigned to this stratum, but the upper levels of Rooms 76, 73 and 72 (as well presumably of 71), which were all involved in the final destruction layer of the Palace, may have belonged to it. (Cf. below, on the context of the bird-vase, No. 259 on Pl. XXVI, 8.) With these should be associated in all probability the last phase of the Palace itself (Pl. XIII and Pl. XV), of which, however, only the foundations remained *in situ*. These were of stone, four courses high, and were found to be tilted bodily towards the east; and the brick wall that had stood on them, as already stated, had fallen down the slope, where it still lay over an extensive area amid the conspicuous traces of a general conflagration.

The Palace and adjoining buildings seem earlier to have suffered severely from the effects of earthquake, of which there are numerous local traces in the vicinity of Rooms 73 and 71 and, in particular, the wall between Rooms 30 and 31 (Pl. XV). To judge by the changed character of the deposits thereafter, this catastrophe may have occurred towards the end of the 16th century B.C. That the Palace itself had

been reconstructed in some way is suggested by the drainage system. The well-preserved lower drain (d^1-d^1 on Pl. XIII) was of a domestic character: starting with a masoned slope from the extant floor-level (of late M.B. ii) it passed through the foundations of the Palace wall; and in its further course carefully avoided the main block of buildings in the lower stratum (Pl. XV). That which succeeded it was similar in construction, but passed over the foundations, presumably from a floor at a higher level that had disappeared under the circumstances already described: in this drain was found a lamp of rather distinctive form (Type 3 in Fig. 1), the approximate date of which seems to be about 1500 B.C.

Though the destruction layers proved to be discontinuous at many points where their testimony would have been helpful, their observed traces link the whole stratum together and remove any doubts as to the relative dating of the M. building. From the architect's log-book one such layer is recorded as overlying Rooms M. I-1 and M. I-2; and at the eastern end also in M. VII it was traced at a level with the tops of the walls of M. IV and M. V; while a similar layer was found at the foundation level of M. V-1 on the south side, where it descended as far as a hard floor below (which proved to be an upper level of Room 43). It seems thus quite clear from these entries, confirmed by the present writer's notes and observations, that the M. building was constructed partly upon and partly in the primary destruction layer, its platform being more horizontal than the natural slope, as may be seen from the sections reproduced on Pl. XIV.

The fact that the ruins of this building were in turn partly covered by a similar upper layer of debris may be interpreted as showing that the attrition of the higher palace-buildings continued thereafter, the debris gradually running down the slope; and in ground free from walls where the striations are accordingly continuous, this attrition layer is seen to overlie the destruction layer. This fact was already apparent in 1930 from the section cut over the line of lower Room 17; and a useful illustration was found in another section which forms the northern boundary to our excavation of 1933, parallel with the wall *m-b*, where it is still visible, and may be seen on a small scale in our photograph on Pl. XLI. The latter shows in similar fashion two layers of burnt debris tending to run together when the occupation layer is thin; but elsewhere divided by the brick layers of fallen walls: these presumably

represent independent houses, for the Palace would not extend thus far.

A criterion for dating the destruction of the Palace is afforded by the specimens of pottery found within the 'Streak.' A typical fragment is figured on Pl. XXVII, 15: from the *a* level of Room 17. It was found at actual level +9.70, about the middle of the layer. Another complete specimen of the same type of pottery was found in or closely associated with the 'Streak,' in the north-western portion of the area, and is figured on Pl. XXIV, 6. (Certain details of its decoration, viz. the wriggling snake line, are omitted from this drawing.) It was taken from an upper layer of house-room 60 (Pl. XV). This type of vase was found in some numbers in the excavation of Tomb 5 (*Annals*, XX, Pl. XXV), where it was seen to be uniquely characteristic of L.B. i, ranging through part of the 16th century B.C. (before the reign of Hatshepsut), and enduring to the end of the series in that tomb, which seemed to have been closed about 1425 B.C. (*ibid.*, p. 35). Examples have been found in tombs at Beisan, together with a seal of Amenhetep II, in complete agreement with our observations at Jericho. The type in question may be regarded as having a range of about a century and a half—from 1575 to 1425 B.C.

The further ramifications of the attrition layer, upon which we have dealt perhaps at undue length, is of course a technical issue calculated to add precision to the details of interpretation but not affecting the main conclusion. As a matter of interest to excavators, however, the present writer cannot but contrast the ease with which this fallen brick layer could be followed in the sections with the relative difficulty and even uncertainty of tracing it when working over the area from above. The stratigraphic method is an ideal process, which aims at clearing each level of occupation with its buildings and contents, before breaking through the floors and repeating the process in the layer below. When the ground is level and the floors are well defined, this process is technically easy. But in practice, particularly in the Syrian Tells, the floors are mostly of earth of almost the same consistency as the debris which fills the rooms, and many intrusive architectural features (*e.g.* deep foundations) interrupt the orderly development of the plan. In this case a further complication arose from the steepness of the slope, and the floors proved to have all displaced by a general subsidence towards the east. The experience of this excavation has convinced the present writer that discreet section-cutting through an area to be excavated is

in general a safe principle, involving in the end less destruction of evidence and material than groping downwards without clues. How many tops of house walls and pavements are removed by inexperienced workmen through want of knowledge as to what they may expect? When once the depth and position of the striations and the lie of walls or other contained features have been determined by cautious parallel sections, cut at intervals, the intervening levels can be peeled off with confidence, and with the immeasurable advantage of a ready and visual interpretation. A section, properly read, provides for the excavator the same sort of basis as chronology for the historian.

There should be noted for completeness of the record the subsequent development of a feature (E on Pl. XIV), like a brick pier built upon burnt sheed bricks, forming a white layer. This was suspected at one time of being the remains of a supplementary staircase leading to upper rooms of the M. I series, but it was finally shown to have been a later intrusion, and probably a support for the heavy foundations of the 'Hilani' of the upper stratum. There are also to be included the contents of a house-room in Area 60, which will be described below.

The DATE OF THIS STRATUM as a whole is not in doubt.¹ The fragments of painted pottery figured on Pls. XXXI-XXXIX were all found within it, and nothing has been omitted from this record except a few uninformative duplicates, so that it may include some fragments from the upper and lower buildings. Comparison will show that many of these specimens correspond in form and design with the more complete objects found in the necropolis of Jericho, notably in the Late Bronze Age strata of Tomb 5. Some of the most distinctive specimens are also comparable with examples found in the excavations at Bethshan, notably in the Amenophis III and earlier levels already published,² and more particularly in the levels of Thutmose III. Of these the excavators have courteously placed photographs and drawings at our disposal, and a complete type series is exhibited in the Palestine Museum at Jerusalem. The designs and forms, for example, of the fragmentary vase (Pl. XXXV, 5) and the restored vase (Pl. XXXVIII, 1) are found

1. The pottery was all examined in our workrooms at the time by the T. Rév. Père Vincent, who expressed to the writer his opinion that it ranged in general from 1600 to 1400 B.C. A full selection of the common or domestic pottery of the stratum, not here discussed, was also examined later by Dr. Albright, who has had unique experience among the contemporary levels at Tell Beit Mirsim, and ascribes it to the same period.

2. FitzGerald, *Bethshan: Pottery*, Pls. XLII-XLIII.

at Beisan in the level below the temple of Thutmose III and are possibly of his date. Many other interesting comparisons may be made, even as far as Hittite Malatia (cf. *Rev. Hit. et Asianique*, July 1934); but such would take us far afield and beyond our present purpose.

Some of these specimens may, indeed, have individually a longer range, and some few, if found independently, might be assigned probably to a later or an earlier date, but as a whole the series is remarkably homogeneous, and there can be little error in assigning the bulk of the group to the L.B.A. i, and in particular to the 15th century B.C. As in the tombs, the period will begin before the reign of Hatshepsut and end with that of Amenophis III, approximately 1550-1400 B.C. It thus fills the blank in our knowledge of the culture history of Jericho which has hitherto led to conflicting views as to the date of the fall of the Bronze Age city. A noticeable feature of the group is the rarity of distinctive L.B. ii types, such as the later Cypriote pottery, Egyptian motives of the Tell el Amarna period, and Mycenaean fabrics. Of the last-named, so familiar on all sites of Palestine in L.B. ii, one specimen is figured on Pl. XXVII, no. 19, found in the debris of Square H 6, but owing to its small size there is a doubt as to the reality of its resemblance.

Some few specimens figured on the Pls. XXXI-XXXIX have an ambiguous context which will be explained, and there should be included several others found in disturbed spots and registered with the upper or lower levels. Thus, on Pl. XXVII, no. 4 was found above the north wall of Room 29; no. 12 was found in Hilani Room 7, and has been reclassified with Area 36; no. 18 was found deep in Area M. III of M. building, but presumably belongs to the same stratum as no. 17. On Pl. XXVIII, fragment no. 1 was found just under the foundations of Hilani Room 3, in Area 70; but owing to the disturbance of this area it is not possible to separate the actual stratum of L.B.A. from the levels above and below. This observation applies to most of the fragments 2-14 on this plate, of which, however, nos. 2 and 5 were found at a higher level than the others, while no. 6 came definitely from the lower store-room floor. There would appear then to be some trace of stratification in this area, for no. 5 conforms with a 15th-century type (cf. XXXV, 5, etc), while no. 6 seems like one of the painted fabrics of late M.B. ii (cf. XXIII, 11). (No. 7, the fragment of an M.B. ii goblet, was found embedded in the wall bounding Area 70 to the west, *i.e.* the main wall of the Palace (80), on the inside of which was found no. 18.)

On Pl. XXIX, fragment no. 3, as already mentioned, was found in the masonry of Hilani Room 3, but nos. 1, 5, 6, 7 and 9, though registered as from Hilani rooms, belong obviously to the middle or L.B.A. stratum, into which the foundations of that building penetrated deeply. No. 4 came definitely from the stratum. No. 8 is a fragment of XXXV, 5, the various pieces of which were found deep in this stratum over room areas 40 and 44 of the lower series. With the exception of nos. 12 and 13, the find-spots of which are uninformative, the fragments illustrated in the lower half of this plate came from a stratified area, partly underlying Room 4 of the four-roomed house of the Iron Age in Square 6, as already mentioned. Nos. 10, 11, 15 and 16 come from the roof level, and nos. 14 and 17 from the floor level of the L.B.A. building, Pl. XIV. In this connection it will be convenient to turn to Pl. XXIV, whereon are figured other, more complete, specimens from the same context. Of these, XXIV, 1 was found in the floor of the L.B.A. house; no. 2 came from Room 4 of the upper house H. 6, and therefore from the overlying I.A. stratum; no. 3 belongs to the group 63, the registration number being miscopied; no. 4, on which there is a suggestion of painted lines like no. 6, came from a spot 30 cms. above the west wall of Room 61; and no. 6, on which the decoration includes wavy snake lines between the vertical lines reproduced, came from, or at the level of, the adjoining attrition layer, the 'Streak,' part of which was traced underlying this room. Group 60, which thus includes vases 1, 4 and 6, and apparently the elaborate jar rim no. 8, together with the associated fragments already mentioned, forms a deposit of the middle or L.B. stratum found *in situ*. With regard to group 63, figured on the same plate, XXIV, nos. 3, 7 and 11 and rims 9 and 10 come from the layer registered locally as *b*, and nos. 5, 13 and 14 from layer *c*. Unfortunately this room was partly broken into by previous trenching, which had cut also through the northern extension of the Palace wall (Pl. XIII above the marks H 5, H 6, and Pl. XV, Room 63), and it would be unsafe to include these groups among the stratified deposits.

On Pl. XXX are figured, for the completion of this record, fragments from the vicinity of the Palace itself (80-81, Pl. XV). Those registered from Square H. 5 mostly came from inside the northern area of the Palace (81), where, however, the trenching already mentioned had cut through the building and apparently removed its northern wall.

Nos. 5 and 11 came from the attrition layer or 'Streak'; and nos. 16 and 17 from below that layer. No. 12 came from a deposit of white ash upon the steps to the south of the Palace wall; no. 13 from a small cistern? north-west of the steps; and no. 19, which looks like an Iron Age fragment, from the debris of the same area.

On Pl. XXXI we come again to the painted fragments found in the excavation of the middle stratum. It is to be remarked that the floors of the house-rooms of the M. I series (the M. building) were mostly barren. After Rooms 1 and 2 had been cleared and the approximate occupation level of the court M. III uncovered, the registration letter was changed from A to M, and in these plates fragments found in the upper 'levels' are indicated by a small *a*. Thus the marks of M. I-1 *a* attached to XXXI, 1 show that this specimen came from the upper contents of house room M. I-1 (Pl. XIV). It was, however, only in the 'court' M. III that any real stratification was apparent, so that our notes about the find-spots will be brief. On Pl. XXXI, no. 2 came from above the floor; nos. 3 and 7 from white ash below the 'Streak' (which overlay the room); no. 4 from the black destruction layer of the house, as also nos. 6 and 10; no. 8 came from below the floor of the building, therefore from lower area 57; and no. 13 from just upon the floor.

On Pl. XXXII, no. 18 was embedded in the floor of Room 4 of house M. I.

On Pl. XXXIII are figured fragments from the 'court' M. III (Pl. XIV). Of these, nos. 1-7, 15-17 come from above the floor level; no. 14 came from the black burnt layer below Hilani Room 7; and no. 7 from above the lower Room 29.

On Pl. XXXIV, no. 2 came from Hilani Room 7; and no. 10 from the burnt layer in the same. The Cypriote fragment, no. 22, came from the foundation level of the building (*b*), with 23 rather deeper.

On Pl. XXXV, nos. 2, 3 and 5 came from a lower level, where they come into relation with the upper levels of Room 44, in the latter of which an upper floor was found *in situ*. Nos. 4 and 8 were found at foundation level; and no. 9 was found below the stratum, actually below the deposit *f* indicated in the plan and section E-F on Pl. XIV, and these pertain to the deposits of lower Room 43, *a*.

On Pl. XXXVI, nos. 19, 20 and 22 are part of a series found with fragments constituting the basis of the large painted jar M.V. *f* on Pl. XXXVIII, all of which were plastered on the sides of a small baking

oven (f) in plan and section on Pl. XIV found at and below foundation level of the M. building. No. 15 was found at datum level of this area, registered at 9.30 m.

On Pl. XXXVII are shown objects from the area outside the east end of the M. building, in lower ground, where there was a clear tendency for the strata to run together. Nos. 7, 11, 16, 17 and 19 are noted as coming from the black burning layer or local traces of the destruction layer known briefly as the 'Streak.' Immediately below this was a preserved upper floor of Room 43, resting upon countless M.B. potsherds.

On Pl. XXXVIII are shown two restored vases. The fragments of the uppermost were scattered throughout the destruction layer over the lower room areas 73, 71, 31 and 18, and doubtless belong to the middle stratum. The lower vase was largely removed from the coating of the oven (f) already mentioned, found in the lower level of the stratum in area M. V (Pl. XIV), together with objects 19, 20 and 22 shown on Pl. XXXVI. Other fragments of this vase were recovered elsewhere, and their distribution has a special significance. Fragment 8 on the next plate is one of these.

Pl. XXXIX illustrates a series of fitting fragments, and others found in various places throughout the stratum, the provenance of which is significant. No. 1, a Cypriote type, comprises three fragments, one from the foundation level of the court, M. III, another from above its floor level, and a third from the debris taken from the lower part of Hilani Rooms 1-2, a clear indication of the local disturbances in the upper strata. Nos. 2, 3, 6 and 10 comprise each two fragments from adjoining rooms. Special interest is attached to no. 7, which consists of three pieces, two from the foundation and upper levels respectively of the court, M. III, and a third from outside the area of the court, over the lower Room 18; showing that this stratum began to be laid down before the intervening wall of M. I was built. A similar conclusion is indicated by the fitting of the two fragments of no. 11, from the upper level of the house 60 upon the top of the slope, and the upper level of the lower room 46 at the bottom, between which intervenes the wall *m-b* of the middle layer, the position of which is indicated above the lower rooms in the plan on Pl. XV. This case not only indicates a relation between the lowest layer of our middle stratum and the topmost layer of that below, but suggests that the ruins on the top were deliberately raked

down the slope, before the construction of further buildings; this may have been done more than once, after each great disaster, and traces of a similar practice have been observed on other sites. Thus would be explained the vast accumulations of potsherds in and over the lower room 43 and the curious lack of stratification inside the M. building, if not the origin of the upper attrition layer in the Streak. Pl. XXXIX, 9, illustrates one of several fragments built into the east stone wall, AA on Pl. XIV, and provides a limit to that construction concordant with the fact that it overlay the preserved upper floor of Room 43. It is very similar in type and technique to no. 11, and represents presumably the same period. We conclude this instructive series with XXXIX, 8, a fragment of the restored vase shown at the bottom of the preceding plate. This piece was found embedded in the wall of house-room M. I-1; another came from the foundations of M. IV-1, a third from the debris of the latter room, while the bulk of the vase was found, as previously mentioned, plastered round the sides of a mud brick oven (*f*) at the foundation level of the building and clearly earlier than the structure. The conclusion is obvious that the level was in occupation prior to the construction of the M. building as a whole. The form and lateral handles, though not unknown earlier, suggest a rather late date in the 15th century, though it is true the technique of the decoration is much the same as that of the vase shown above it on Pl. XXXVIII, which by analogy with a Beisan model falls early in that period, if not just before the reign of Thutmose III. This suggestion points to the second half of the 15th century for the M. building, and this conclusion is in harmony with the more direct evidence which we can now consider.

Immediately under the wall of the M. building, and therefore not subject to later disturbance, were found the jug figured on Pl. XIX, 16; the bowl (XXIV, 15) and the cooking-pot (XXIV, 17). The first of these is an unusual type based on M.B. ii models, but somewhat elaborated. The pedestal bowl is also somewhat elaborated, but is comparable with prototypes found in layer *e* of Tomb 5 (*Annals*, XX, Pl. XXIV, 1 and 6), which dates approximately from about 1600 B.C. The same criterion is found in Tomb 31, dated by a scarab of Kames (*Annals*, XX, p. 10, Fig. 4, no. 7). The cooking-pot 17 is also a Late Bronze type¹ developed during L.B. i, and represented in the upper layers of Jericho Tomb 13

1. Cf. Albright in *A.S.O.R.*, XIII, Pl. 17, p. 117, no. 5, found by him at Tell Beit Mirsim at his level C, and his discussion in *T.M.B.*, I, 55.

(a, 2 and a, 28), and in Tomb 4 (b, 8). Another item is produced by the excavation of lower room 39, where in the top 'level' was found the decorated vase of the familiar two-handled class, figured on Pl. XXII, no. 11. This room, as may be seen on Pl. XIII, was partly traversed by the north wall, *m-b*, of the M. building. This is apparent from our photograph on Pl. XLI and from the sectional drawing at the foot of Pl. XIV. On the last, the find-spot of the vase, indicated by a cross and the letter a, is seen to be just below the level of the bottom of the *m-b* wall, and it was nearly 1 m. to the south of that wall line. The floor level of the M. building as determined by a door socket in room M. I-3 was at the second course of the foundations. Thus the wall *m-b* was probably constructed after the depositing of the vase, a result which agrees with the other indications. But this type of vase, as seen already in numerous illustrations, is found all through the middle stratum, including the overlying attrition layer. The conclusion again is, that the building was erected during, and before the end of, the period represented by that class of vessel.

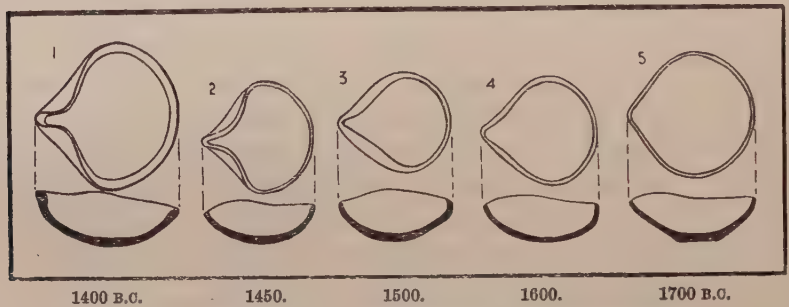


Fig. 1.—TYPES OF LAMPS WITH APPROXIMATE CENTRAL DATES.

Our notebooks are full of details bearing upon this matter, but the further evidence of certain lamps and lamp-fragments will suffice to bear out the conclusion. We have not illustrated these individually, because it is difficult to photograph or even draw lamp-fragments in such a way as to indicate intelligibly their form and character. They have, however, been compared piece by piece with the whole specimens found in the tombs, of which we reproduce a series of types herewith for the purpose of classification.

The central dates ranging from 1400 to 1700 B.C. which we assign to our specimens are only an approximate indication of their development ;

each type had a range of a hundred years or more, and the evolution of form ultimately attained was not a uniform or regular process. Thus at Tell Beit Mirsim, Dr. Albright has found an advanced prototype of our type no. 2 in his D level,¹ indubitably of Middle Bronze Age ii, in which, however, the prevailing forms correspond with our nos. 4 and 5. On the average, however, these five types represent the Jericho Bronze Age series, in which the late developments of L.B. ii, as seen for instance in the levels ascribed to the levels of Rameses II² at Beisan, are not found either in the tombs or the city strata. The flat base to no. 5 is not a distinctive feature: the development of the pinched spout or wick-holder and the doubled rim is the real criterion. Of these types the following examples were found in the excavation of the L.B. stratum. None of these appear to have had a doubled or thickened rim.

Type 1: In Hilani Room 7, debris, a rough fragment with narrow spout, much broken, but apparently intermediate between types 1-2.

In area M. VII, debris, a rough fragment, spout broken, form fairly clear.

In room M. I-1, debris, a similar specimen of better fabric: form clear.

Type 2: In area M. IV-V: debris, a well-made fragment, form clear.

In room M. V-2, upon the floor: large piece, well-made, form between types 1 and 2.

In room M. I-2 embedded in the made up door-sill w.: form not clear, tending towards type 3.

In room M. I-1, at foundation level: spout broken, apparently form 2.

In the 'court,' M. III. (W.), a fragment possibly of this type.

Type 3: A complete specimen from inside the upper drain of the Palace: [Reg. H 5, 4].

An intact specimen partly under the restored upper wall of storeroom 76.

A fragment from the debris of Room 72.

1. Albright, *A.S.O.R.*, XII, p. 102; Pl. 8, 2, and p. 137, Pls. 43 and 34.

2. FitzGerald, *Bethshan: Pottery*, Pl. XVII, 22-24.

The Late Bronze context of the two latter specimens is doubtful, and the types 4 and 5 are only represented in the underlying stratum.

We may conclude from the foregoing considerations that our Middle or intermediate Stratum, though showing traces of interference from the Iron Age stratum above, and somewhat confused in its lower levels with the underlying stratum of M.B. ii, typically represents the culture of the Late Bronze Age, and in particular the 15th century B.C. We may also infer from the evidence that the M. building was constructed upon a terrace dug in this stratum during the second half of the 15th century B.C., possibly as early as 1450 B.C., the stout retaining walls BB, CC to the south being designed to restrain subsidence in that direction, where the ground falls steeply; and that this building shared the fate of the Palace and adjoining storerooms about 1400 B.C. It is possible that the M. building actually replaced the upper Palace which may have been in ruins at the time; and that the attrition layer, *i.e.* the upper layer of the 'Streak,' which ultimately covered the whole area, represents the subsequent period of non-occupation.

In addition to the lamps and lamp-fragments, two special objects were found in the excavation of this stratum. The one is the unusually good Astarte figure in clay, shown by collotype on Pl. XLIII, 3: it came from the debris of Room M. V-2. The other is a tablet of clay, rather burnt and damaged, on which some cuneiform writing can be seen to be preserved, on the same plate, no. 1. It was found in the debris of area M. VII. Mr. Sidney Smith has courteously supplied the copy of the text reproduced in Fig. 2 and the following report:—

REPORT ON TABLET FROM JERICHO

Size.—About 5 cm. by 4 cm.

Shape.—'Pillow' or 'cushion,' both sides convex. Most similar to Tell el Amarna tablets: less so to 'Cappadocian' type from Caesarea.

Condition.—The reverse has lost more than half its surface, owing to removal of two chunks of the clay. The obverse is pitted just over certain parts of the inscription in a way that makes me think the damage may have been intentional—done by the scribe?

Clay.—A slate-grey inclining to black: probably due to intense firing of a clay free from organic matter, containing calcium carbonate.

Epigraphy.—The signs resemble those used in the el-Amarna letters from the Phoenician coast towns, more than those from Mitanni, Assyria or Asia Minor.

Inscription.—There are only four certain signs. A peculiarity to be noted is that the first line impinges over on to the reverse from the obverse: this is extremely rare on cuneiform tablets, but does occur in Assyria and Babylonia.

1. *Sa*(?) *zi*(???) *ik*(?) *ni*-? ^a- *ih*
u
2. *ma*(??)
3. *da*(??)- *ga*- (one or two signs obliterated) *ta-el*(??)

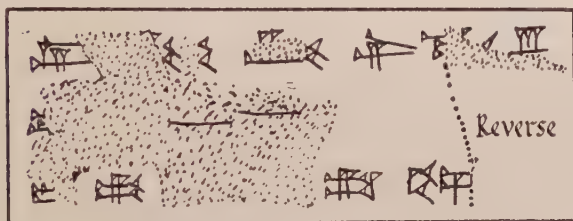


FIG. 2.—INSCRIPTION ON TABLET FROM M. VII.

NOTES

1. *sa*: it seems certain that this fits the traces better than *ni*.
zi: a mere guess to fit the traces.
ik: very probable.
ni: certain.
 ? : might perhaps be *ba*, *ma* or *si*.

2. This line almost certainly hammered out.

3. The last sign, if to be read *el*, is slightly unusual in form. The whole line may contain a personal name. It is therefore tempting to suppose that the divine name Dagan, so frequent in common names, might be restored. But this would require the god's sign at the beginning.

Interpretation.—I cannot make sense of any part of the inscription. I do not think it is possible to say what the document may have been; but one might guess it was of the class called by the Babylonians *tahsistu*, a business note recording some name or names.

Date.—Quite uncertain. The few signs point to a date not earlier than the el-Amarna tablets, but no absolute precision is possible. The general limits are 16th to 14th century, with a probability in favour of the later date.

MIDDLE BRONZE AGE ii

BUILDINGS AND STRATIFICATIONS. As may be seen from the photograph on Pl. XL, the lower stratum of the area examined in 1933 was filled with buildings, a plan of which is reproduced on Pl. XV. They comprise a series of small storerooms structurally linked together; but some of the upper or western series—in particular those numbered 71-73 and 76, together with the eastern wall of the Palace (80) against which they abut, and the isolated group 60-63—show traces of a higher and, to some extent, a later floor level. Structurally the original block, to which there may have been a separate entrance from the east, seems to have comprised nos. 41, 42, 45, 35, 47 and 44.

Communication with the site of the main building may have been by a flight of steps to the south, which has been found to underlie that represented in the plan, and may have been connected with a roughly paved street traced in 1931 behind the older wall of Tower-room C. There is, however, no evidence as to the exact site of the Palace itself at the earliest stage, though it may be presumed to have stood upon the high ground where the foundations of its successor (no. 80) are preserved.

In the developed plan of the storerooms, a main entrance was made in the western face (no. 57), and a doorway seems to have been cut between Rooms 37 and 42, to be filled up, however, at a later stage. As the system continued to extend upwards, towards the west and north, the only visible line of approach from the top would seem to have passed between Rooms 59 and 64, where the upper drain of the Palace (d²) and the walls of house-room 63 later barred the way. The lower drain (d¹-d¹), as already stated, studiously avoided the main block of the buildings, so that when Palace 80 was constructed most of the system would seem to have been standing, though the drain cut through Room 59 and partly through 64. This was, however, covered, and presumably at surface level, so that an entrance to the Palace in its east face, where the line is broken, is indicated by these considerations, though foundations suggestive of a stairway have been observed to the south in area 64.

It is to be remembered that in the second half of the Middle Bronze Age, to which these ruins belong, the area enclosed by the ramparts (City C on Pl. XI of *Annals*, XIX) was much greater than that defined by the Tower and existing remains of defensive wall of M.B. i (our

City B). The occupation level can actually be seen to have risen during this period to the height of the Tower-top. On Pl. XVII are represented the groups of pottery associated with child-burials, and hence presumably just below the floor levels of their generation, found behind (*i.e.* just to the west of) the Tower itself. Of these group no. 3 was the deepest, at 2.50 m. below the top of the Tower wall; it includes an early juglet (no. 18) and a Hyksos style punctuated juglet (no. 19). The other groups, also characteristic of M.B. ii, were found at slightly higher levels: no. 1 (with vases 13 and 14) at 1.75 m. and no. 2 (with vases 15 and 17) at 1.20 below the same datum. The last deposit indicates already a floor of occupation near the top, and the level is found to have been artificially raised at a certain date by a filling of stone debris. In this, at only 20 cms. below the tower top, was found another juglet (Reg. no. J. 31, no. 71) of the type represented by no. 18 already mentioned. In further evidence, the storeroom system is found to extend over those earlier defences so as to include the 'Kilns' 1, 2 and 3, and probably spread over the tower itself, whereon, over the filled-up Room C, a deposit of kindred pottery types was found on the spot marked 4. These are illustrated at the top of Pl. XVIII, and below them are shown the types of objects found in the 'Kilns.'

These chambers were named 'the Kilns' by the workmen at the time of discovery in 1931 because of the conspicuous traces of fire and the burnt nature of the pottery contents, and we preserve the name for convenience of reference though their context is now made clear. They formed the starting-point of this piece of investigation, and gave a ready clue as to the general period covered by these deposits. The vases include standard types of M.B. ii: *e.g.* the bowl-forms 2, 5, 20 and 28, and the larger jugs 1, 31, etc., together with others like the cooking-pot fragment 7, the amphora 21 and 22, and the jugs 30 and 33, which may be regarded as transitional, if not entering into the category of L.B. i (cf. *Annals*, XX, Chart of Tomb 5, Pl. XXV, also Fig. 9, p. 26). The goblet 26 was found in 1933 on a lower floor in Kiln 1.

It is already evident that more than one period of activity is represented by the buildings and deposits of the lower stratum, and we reproduce a visual section, *m-b*, on Pl. XIV in further illustration of this fact. The upper feature represents the outer north wall of the M. building, which is seen to have cut into the tops of the walls of the lower store-rooms to an extent which increases from east to west. Over Room 48

is seen a clear layer of earth and pebbles, with two 'levels' of occupation, following the slope of the hill, visible between its walls.

In Room 39 these three layers are again represented: in the top-most at the spot *a* (not, however, actually under the *m-b* wall but 80 cms. in front of it) was found the painted vase (Pl. XXII, 11) already mentioned in our discussion of the higher stratum. Though found below the level of the adjoining wall-top of Room 39, it lay in dark-coloured earth debris, and was separated from the lower contents of the room by a layer of fallen brick, etc., seen in the section we are considering. So that, though this find was registered by the letter *a*, which indicates in general the uppermost or superficial deposits of each numbered area, the position and circumstances of discovery, when compared with the continuous layer overrunning the ruins of Room 48, do not necessarily demonstrate the existence of a floor of occupation at that level belonging to the room itself. On the other hand, a real floor is indicated at a depth of about 1 metre, and a second half a metre below that. The occupation layers corresponding to these floors are registered as *b* and *c* respectively. Below the *c* floor a sounding disclosed fragments typical of early M.B. ii culture. These are classed as *d*. The upper levels of Rooms 49 and 58 are seen in the section to have been destroyed by the construction of the M. building, and the upper layer of Room 39 was in such chaos that it is not possible to assign the contents to their original level. Near the bottom, associated with a thick layer of black burnt matter, were the jug (no. 10), the restored 'chalice' (no. 14) and the stone mortar (no. 13) shown also on Pl. XXII, together with a small amphora of drab ware, and a bowl of coarse drab ware. From the debris came the fragments of the early cooking-pot (no. 12) and the fragments of a jug of brick-coloured pottery; while from an unexplained raised mass on the west side came a pithos or store jar with rim of M.B. ii character, in the mouth of which was a small carinated bowl used as stopper. It would seem then that the floor context *c* was characteristic of M.B. ii, but no clear evidence was found of the relative period of layer *b*.

The indications of two chief occupation levels representing M.B. ii, upon an earlier stratum of the same culture, found in Room 39, are fully borne out by a detailed examination of the central group 40-42, whereof a sectional view and plan are found on Pl. XVI.

The uppermost layer *a* contained a number of painted sherds at the level of the highest walls; two of them, shown on Pl. XXVII (nos. 9 and 10),

are of the same class as those so freely found in the overlying stratum; the polychrome concentric bands like those which decorate the former are found on a dish from *b* layer of Tomb 5, dated therefore to the 15th century B.C. No. 18, on the other hand, which shows a firm red decoration on a cream slip surface, though found in the *c* level of M. III above, belongs typologically to this stratum. Its companion (no. 17) from Room 64 was, in fact, found outside the area overlaid by the M. building. Both resemble in style the better-preserved portion of a wide-mouthed goblet found at 2 metres depth in Tower room A, figured on Pl. XXVIII; and since this room was presumably filled up and overlaid by the contemporary deposits of M.B. ii—L.B. i (as the adjoining Room C was covered by the deposit 4, Pl. XVIII), this distinctive piece may be dated with confidence to an earlier phase of M.B. ii. It is comparable with the decorated jars found in the bottom layers of Tomb 5 (*Annals*, XX, Pl. XXXI) though showing a more advanced technique; and it resembles closely, both in motif and technique, an elegant bowl found in an early M.B. ii context in layer *c* of Tomb 9 (*Annals*, XIX, Pl. XXX, 11). It is also similar to the vase (shown on Pl. XXIII, 11) which came from below the heavy stone wall overlying Room 44, and therefore undoubtedly M.B. ii in period.

Decorated wares of M.B. ii are relatively rare, so that another fragment found at the top of the adjoining Room 44, figured on Pl. XXVII, 13, evokes similar questions; for though the decoration and motif is one of the most familiar in the overlying stratum (*e.g.* Pls. XXXI, 10; XXXII, 11), it is also represented in various combinations on vases from Tomb 42 at Beisan, classed as M.B.A. by Mr. FitzGerald, though perhaps transitional in style. Lastly, we may note the distinctive piece (XXIX, 8) forming part of a larger whole (XXXV, 5) found under the floor level of the M. building, but so characteristic of the L.B. style of Thutmose III that it can only be associated with the upper layers of the rooms below if these can be shown to have survived the Hyksos domination or to have been rebuilt thereafter. It is, then, important to note that the tops of some walls in this group of rooms do show some slight trace of reconstruction or alteration, as seen in the reduction of thickness in the S. wall of 42, a ledge on the outside of the W. wall of 41, and certain details in its southern wall.

A problem arises from these considerations. Do the fragments of painted wares found at the level of the wall tops, and the scanty traces

of architectural restoration, represent a third stage of re-use and partial rebuilding of these rooms, subsequently destroyed by the construction of the M. building above? The area within the confines of the M. building is obviously too disturbed by the deep terracing of its foundations to provide the answer; but some rooms belonging to the lower system were found outside the southern boundary wall of the M. building and also on the higher ground to the west, in particular Rooms 8, 17 and 30, and the group abutting more or less against the Palace wall, 71-3 and 76. These we hope to discuss in detail in a later issue; but in broad lines their evidence can be already stated and is very cogent. A section cut in 1932 through the line of Room 8 and the southern half of Room 30¹ provides an answer to one part of this problem. In this cutting the layer of brick debris from the ruined Palace, which we call the 'Streak,' was found overlying the ruins of the burnt rooms and their broken M.B.A. deposits, among which was no trace of the painted fabrics so common in the middle stratum and present in the 'Streak' itself. Above, and partly bedded in the 'Streak,' were the foundations of some cross-walls of the Iron Age 'Hilani.'

Another section through Room 17 provided further detail at an instructive point, with the southern boundary wall of the M. system in the picture (Pls. XIII-XV). As with most other rooms, the floor of Room 17 was found to slope considerably downwards towards the E., varying from level 7.25 m. to 6.80, a difference of 45 cms. in a distance of 3.50 m., and its walls also leaned in the same direction. The interior disclosed a vivid picture of burning and destruction, and when the N. wall had been cleared two periods were seen to be represented. In the earlier one, a doorway had communicated with Room 36 (Pl. XV). In the later one the doorway was filled up with debris, and a line of stones upon the N. wall, descending from level 8.30 to 8.10, indicated a period of restoration, when apparently a new door was made with the sill at 8.45, communicating with Room 32. The new floor was thus about 1 metre above the old one. Over the ruins and burnt debris of this upper level ran the 'Streak.' It was about 45 cms. thick altogether above the NW. angle of the room, where it lay between levels 9.25 and 9.70, but ran steeply down to cover the more ruinous eastern wall at level approximately 7.65. This 'Streak' was visibly double; the lower part

1. This room at first was numbered 14, but was later found to be continuous with Room 30,

was composed of burnt and damaged bricks, almost like a wall lying prone, the courses being still traceable, and it was separated from the softer deposits of similar material above by a striation of small stones, such as are visible on a bigger scale at the foot of any tip-heap, and might have been caused by raking down the debris eastward from the higher ground to the west. Exactly in this striation at level 9-33, above the NW. angle, was found the painted fragment of the L.B. vase figured on Pl. XXVII, 15, and already described. Above this 'Streak,' across the angle of the room, ran the stone foundations of the wall CC (Pl. XIV), which as previously mentioned was found by the first excavators of the 'Hilani' below that building. This section proves to have given a true forecast of the stratification of the whole area, in which two occupation levels of M.B. ii are overlaid by the destruction and attrition layers of L.B. i. These we have seen to have served in turn as foundation for the enclosing wall of the M.B. building,¹ which was itself overlaid in time by the Iron Age 'Hilani,' without signs of intervening buildings in either case.

As for the contents of Room 17, the bottom floor (c) had been filled originally with *pithoi* or large store jars, arranged systematically in rows and filled with grain. In addition the objects figured on Pl. XIX (5-14) were found in the lowest 30 cms. of debris, below the most obvious layer of burning, in such a position as suggests that they formed part of the original deposit. The lamp (10), the goblets (5 and 8) and large bowl (6) are characteristic of developed M.B. ii; and the association of the bowl no. 12, with its collar and painted horizontal bands of decoration, is a particularly instructive feature, as the same motif is represented in our Tomb no. 31, dated by a scarab of KA·MES to 1600 B.C. (*Annals*, XX, p. 10). The objects found in the doorway connecting with Room 36, shown on Pl. XXII (nos. 1-5), included three plain dishes with slightly thickened rim (1, 3 and 4), a bowl with ring base and everted lip (2), and a strainer with peculiar round bowl (5). With these deposits may be compared the group taken from the burnt floor of Room 30 (Pl. XXI). In the upper layer of Room 17, lying in a state of confusion amongst the traces of fire and destruction, were found other objects of M.B. ii, of which the following is a brief record, with the find-spot indicated in each by its level. (i) At 7·90 : globular bowl on short pedestal

1. Mr. Richmond, who studied the walls closely, did not find any clear bond between the M. building and the CC wall, which may thus have been later or supplementary.

(Type σ on Pl. XXV, *Annals*, XX). (ii) At 7.50: two 'loom weights,' shaped pieces of clay, flat-bottomed and pierced with a hole. (iii) At the same level, a goblet. (iv) At 8.00, a small bowl on short pedestal. (v) At the same level, a large bowl on a ring base, same form as above. (vi, vii) Two dishes. (viii, ix) At 8.20, the rims of two *pithoi* or store jars. (x) At 8.20, another fragment of the same. (xi) The handle of an amphora, stamped in Egyptian hieroglyphs (our Fig. 3): 'The scribe of the Vezir Senb-ef, repeating life,' which Professor Newberry, to whom



Fig. 3.

the reading is due, ascribes to the Hyksos period (cf. Sellin and Watzinger, *op. cit.*, XLII, a). The store jars in general will be treated in a later report, as our records in this matter include two whole books of drawings. But they and the other objects of this upper level represent the same general culture as those found below; and it may be concluded that the two periods of occupation visible in nearly all these storerooms are not distinguished by a radical change of culture. The

vessels saved from the wreck of the lower floors seem to have been pulled up and re-used in the higher levels.

In these Rooms 8 and 17, which lay below the level, outside the area of the M. building, there is thus no sign of rebuilding at a higher (third) level; nor any trace of infiltration of a later culture independent of the 'Streak' to substantiate the suggested upper layer *a* within. It would seem then certain that our recorded top layer *a* of the lowest stratum within the enclosure is to be associated generally with the lowest layer *c* of the middle or L.B. stratum, and represents a period of partial occupation, during which the slope below the Palace remained largely an open space unoccupied by buildings. This era belongs evidently to the 16th century B.C., when M.B. ii culture was giving place to that of L.B. i.

If now we glance again at Pls. XXVII and XXVIII and eliminate the fragments associated with the 'Hilani,' we find the remainder to be divisible into two classes. The earlier one is represented by the rare but distinctive decorated types of late M.B. ii already discussed (*e.g.* XIX, 12; XXVIII, 19; and XXIII, 11), and includes XXVII, 1, 6, 13, 17 and 18; and XXVIII, 13, 16 and 18. The later one is represented by the typical L.B. i fragments, XXVII, 9, 10, 12, 15 and 19; and XXVIII, 5 and 8, with which most of the others can be classed. It would seem, then, that a line of cleavage rather than an overlap is suggested between

the M.B.i deposits of this area and those of L.B.i, pointing to a local break or catastrophe in the 16th century B.C. The chart of Tomb 5, *Annals*, XX, Pl. XXV can also be interpreted in this sense.

It is now plain that the traces of reconstruction in the central block of rooms cannot well relate to a third phase of occupation; but before dismissing the question altogether it is necessary to consider briefly the rooms in the upper part of the area, near the Palace wall (nos. 71 *sq.*), which also lay outside the area of the M. building. The special interest of this group of rooms and their deposits calls for a detailed study which it is hoped to publish in due course. But briefly it may be said there were found plain traces of reconstruction, which are illustrated by the various deposits.

The group from the hard lime floor of Room 30, shown in Pl. XXI (nos. 1-11) and by photographs of the restored vases on Pl. XLIII, illustrates some of the standard types of M.B.ii already seen in other rooms. This floor was structurally higher, it would seem, than that of the deeper system of Room 68, whereon, mixed apparently with the lower deposits of Room 71 and the fallen timbers of its own roof which were remarkably preserved, were found objects figured at the bottom of Pl. XXV, nos. 17-20, which must therefore be ascribed to an earlier period. The chalice with a snake moulded upon the handle, shown also on Pl. XLIII, 4 (restored in our workshop from seventy-three fragments sifted from the earth), proves to be a specially instructive piece. Together with the very large libation bowl (no. 19) and other features of the deposit, and the details of the room itself, it suggests the presence here of a shrine.

The snake is the only cult emblem appearing among the M.B.A. deposits of Jericho: another very good specimen is seen in the vase from level *b* of Room 38, shown on Pl. XXII, 9, where the snake is moulded separately from the handle, and the vessel itself represents a face with prominent eyes. Several other fragments have been found in the vicinity on which portions of a spotted snake are preserved, being modelled in relief upon the surface of a bowl. The triple handle, not uncommon at this period, seems frequently to be derived from the same motif as the libation jug in question (XXV, 20), where the central member overlies, as in this case, the ordinary double or divided handle; and even though sometimes without a formed head (cf. XXI, 23), the underlying idea is revealed by a coil or similar feature at the lower end to suggest

the tail. In L.B.A. the moulded snake gives way to a painted representation, on which the earlier or more carefully finished examples suggest the reptile's head clearly (*e.g.* XXVIII, 5; XXIX, 12); but in the course of time the motif of a wriggling snake survives only as a wavy line between two straight ones which presumably represent its hole or cage (*e.g.* XXVIII, 1, 6; XXVII, 15).

The very numerous contents of Rooms 71, 72 and 73 were found for the most part in a very fragmentary condition; this part of the building seems to have suffered the destructive effects of successive earthquake, fire, and the falling of the Palace wall. None the less it was possible to recover the forms of a great number of the pottery objects of which a selection from Room 73 is represented on Pl. XXVI.¹ They are for the most part characteristic of our level *b*, but they comprise a number which seem to illustrate degradation or advanced development: *e.g.* the pronounced turn of the lip to the jug (no. 5), the squat form of the mug (no. 6), the angular contour of the goblet (no. 10), the high pedestal to the dish (no. 16), and the bronze chisels (nos. 18 and 19) not seen in the other rooms. There is no doubt in this case of a confusion between two superposed layers, whereof the uppermost (an independent local level *a*) seems to represent a late or even transitional M.B. ii period and culture. Confirmatory evidence was found in the reconstruction of the preserved walls, which actually rested upon pottery objects of the original deposit. Room 76 had apparently shared the same history, and partly under the wall which divided this from Room 73 was found a lamp of our type 3, Fig. 1, which gives a clue as to the date of this reconstruction. The objects within these rooms were found among white ash, closely overlaid by a thick layer of charcoal and burnt debris, and over all was the full depth of the destruction layer of the adjoining Palace wall, the 'Streak.' While the relative positions of the objects in Room 73 were recorded like all others, it is not possible to place much reliance as to date upon these observations, for the two layers were obviously intermingled. While suspending a final opinion about the dating of these various levels adjoining the Palace wall until our statistical analysis is complete, it would appear possible in this case (Room 73) that the upper layer actually rested upon a wooden floor, since the charred ends of a number of beams were bedded

1. Also Pl. XXV, nos. 17-20.

into the southern wall. A similar feature was noted in the debris below Room 71, overlying Room 68.

The most striking object from Room 73, the bird-vase (no. 8 on Pl. XXVI), was found in fragments upon a raised niche or brick construction of sorts abutting against the Palace wall. A similar vessel found in Cyprus is classed with Iron Age objects, but Professor Myres¹ is careful to observe that the class reflects the style of M.B. ii. In our example, the imitation of a double handle, just visible on the preserved portion, points also towards the earlier date, though the fine texture of its clay and various details make it possible to assign it to the first phase of L.B. art. That the Late Bronze Age was close when the deposits were laid down, and had in fact begun at the time these chambers were destroyed, is clear from the number of characteristic painted fragments found in removing the debris: *e.g.* on Pl. XXVIII, nos. 2, 4, 5, 6, 8 and 10. Some of these were doubtless associated with the 'Streak' itself (nos. 2, 5 and 10), but it is fairly clear that some are to be assigned to the mingled deposits among which they were found: in particular, nos. 4, 6 and 8; the latter was actually taken from the white ash, and a handle of a vase of form XXIV, 6, not here figured, was taken also from the black burnt debris of Room 73.

As for the Palace itself (no. 80), the objects recovered from its walls and floor (Pl. XXVIII, nos. 14-18), with which should probably be associated nos. 11-14 from the 'Streak' covering Room 76, show that the original building represents an advanced date in M.B. ii, and that its final destruction is to be assigned to a developed phase of L.B.A., more precisely to some date in the 15th century B.C. after or during the age of Thutmose III. The deposits in the upper level of Room 73, etc. will have been laid down about the same time that the Palace was reconstructed, and its latest elements will represent the time of its destruction. Whether this last phase of the Palace represents a reconstruction upon foundations already existing, as suggested by the position of the drains d¹, d² already mentioned, presents a problem about which no other material evidence seems to have survived: this would seem, however, to be probable, and the period of earlier building may be dated by that of the original *b* floors in the contiguous storerooms, the firing of which has left plain traces upon the upper courses of its stone foundations.

1. Myres, *Handbook of the Cesnola Collection*, 1914, p. 69; no. 532.

Looking again at the section of Rooms 40-42, and allowing for the higher floor-level of Room 40, we find clear trace of the original floors of occupation (*c*) put to slightly different uses. Great store jars practically filled almost the whole of Room 42, as may be seen from the photograph on Pl. XLI. These were stocked with grain of various sorts, which seems to have burnt; and the floor-level was then apparently raised by filling the chamber with earth so that only the mouths of these vessels appeared at the surface. In the narrow adjoining Room 41 the jars were thus disposed, it would seem, from the first; for they rested upon the charred wood of an earlier level *d*, which is seen to be continuous below the wall foundations of Room 40. In the latter a number of small objects were found at this deep level, while store jars together with other vessels were found on the main floor, *c*, above.

In general, the main floor (*c*) seems to have been devoted to the storing of grain in large jars, and this observation applies to Rooms 14, 17, 29, 32-34, 36, 37, 61-65, 71-73 and 76. In most of these rooms there were traces of extensive burning in the lower levels, and the case seems to have been met promptly by filling up the original floor-space with debris until the burnt produce was all covered; the level thus reached became the new floor of occupation *b*, the walls being slightly raised (as indicated) to compensate for the loss of height. The pink, white and black traces of burning of the floor contents in Room 40 are just suggested in the reproduction of our photograph on Pl. XLII. The floor deposits of Room 44, however, shown in the lower picture, as also Rooms 11 and 18, bear no trace of burning below the second level, which is indicated on the west wall of Room 44, on the left by a black streak, and on the right by a number of sherds of the secondary deposit still clinging to the plaster of the wall. Each of these rooms thus exhibits two main periods of occupation without material change of plan; but it would appear that all objects remaining intact, including some of the great store jars, were hauled up to the upper level and re-used; so that the culture-line between the two floors is not readily discernible.

So closely, indeed, is the general culture relation between the contents of floors *b* and *c* in general, that they would appear to represent a continuous phase of art, interrupted by some political or military catastrophe. The same observation applies more or less to the culture levels D and E at Tell Beit Mirsim, both of which represent fairly advanced phases of M.B. ii, and seem to correspond in a general way with layers

c and *d* at Jericho. But absolute contemporaneity would have involved an upper floor to the rooms, carried on timber, and though such a feature might be readily suspected from the black nature of the burnt debris, there is no trace in the walls of cross-beams, except (as already mentioned) in Rooms 73, 71 and 68, and even in these cases the burnt ends bedded in the walls may be the traces of original roofs rather than of floors.

In Room 40, of which a diagrammatic plan and section are given on Pl. XVI, the main floor *c* produced most of the characteristic objects figured at the bottom of Pl. XXII, including nos. 15, 16, 18 and 19. To the upper layer in all probability belonged the fragments of the striking specimen no. 21 (seen also on Pl. XLIV), an example of the animal forms found towards the end of M.B. ii, and apparently a drinking-cup. From the lowest level (*d*) came the large dish (no. 20) and the stone mortar (no. 17).

In Room 44 the two layers *b* and *c* were relatively well defined, and separated to some extent by a layer of burning still visible upon its western wall (Pl. XLII), as already mentioned. The main floor (*c*) was mainly occupied with store jars, of which the major portions of sixteen remained *in situ* as shown on Pl. XVI. Detailed study of these is postponed, but it may be noted that some of them were four-handled, and from two in the NW. angle came four seal-stamps and a scarab (Fig. 4, no. 8). On the same floor were found also a number of smaller vessels, notably those numbered 1, 2, 4 and 14 on Pl. XXIII, which are characteristic types of M.B. ii, as well as the unusually elongated specimen no. 13. Carbonised grain was plentiful in the jars, and it is to be supposed that the floor-level was raised about 80 cms. to the level of the jar mouths before the store was burnt. At this level (*b*) were found the remains of nine more store jars which had been ranged around the walls, and with them a fifth sealed handle having a legible inscription quoted below. Other objects included two dagger blades, nos. 5 and 6 on Pl. XXIII; the trefoil-mouthed jug which resembles that from Tomb 9 (*a*, 14); the dish (no. 7), which though badly warped (? by rebaking) recalls in form and detail that found on the floor of Room 30 (Pl. XXI, 6); and the painted vessel (no. 11), already mentioned, with which may be compared the goblet on a three-loop base from Tomb 31 (*a*, 127). In this case, then, we find some suggestion of a later period represented by the upper deposits, since nos. 3 and 11 are comparable with advanced M.B. ii specimens, and the inscribed jar handle is also similar to that

from layer *b* of Room 17, already transcribed (Fig. 3). The scarab (Fig. 4, no. 8) is none the less Hyksos in lettering and style. As for the uppermost layer *a*, we have already concluded that the fragments of painted pottery associated with the destruction layer of this room mostly represent the period of subsequent reoccupation; and the architectural features suggesting some amount of reconstruction presumably relate to the period (*b-c*) when the floor-level was raised and the walls retopped after the first conflagration.

INSCRIBED JAR-SEALS AND SCARABS

Most of the inscriptions on the jar handles found in various rooms were blurred and illegible, though it can be seen that they conform in general with the Hyksos style. The pottery and forms suggest a late

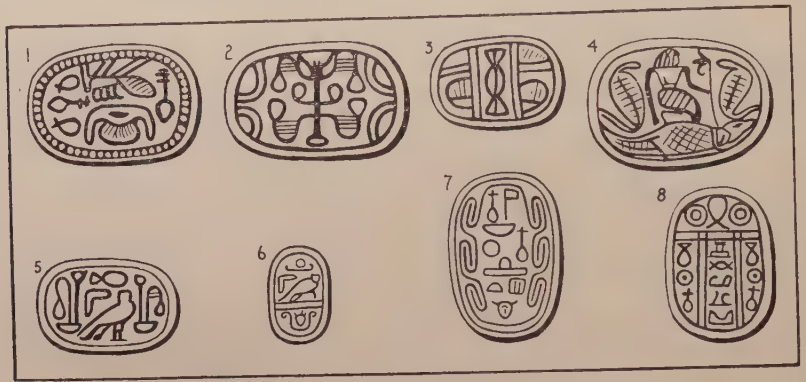




Fig. 4.—SCARABS (1-5 AND 8) FROM THE CITY OF JERICHO: 1933.

period of M.B. ii, and it remains an open question whether some should not be assigned to the 16th century, after the Hyksos period in Egypt was at an end. The same question arises with the scarabs, of which a further series of seventy-two was found in the tombs and six in the city. The total number of scarabs recovered thus amounts to one hundred and sixty-five, and as most of them are of 'Hyksos style' it becomes highly probable that a considerable proportion must represent the local art of the 16th century B.C., since there is no suggestion of much discontinuity in the tomb deposits. That they cover the whole of the 15th century is testified by the scarabs of Hatshepsut, Thutmose III and Amenhetep III. Of those reproduced in Fig. 4, Scarabs nos. 1 and 2 were found in Room 11, no. 3 in Room 28, no. 4 in Room 76 (M. VI), no. 5 in Room 44 and no. 8

in Room 64. No. 6 from the siftings of Tomb 30 is introduced for comparison with no. 5; and no. 7 represents a royal name, *Hetep-'ib-Ra*, in purely Egyptian hieroglyphs. This king is assigned by Daressy to the XIIIth Dynasty and by Petrie to an earlier date, but is held by Professor Newberry to be more correctly grouped with the Hyksos kings. Professor Newberry also calls attention to several errors in the inscribing which betray a certain unfamiliarity with the script. The circular sign representing Ra (or Rê), for example, ought to have a central dot; while the positions of the *t* and *p* which complete the penultimate group have been reversed.

The following schedule shows the royal and private names to be read upon these scarabs and seals, together with others, found earlier and already published, for convenience of reference.

Tomb 30.	Scarab :	Hetep . 'ib . Ra		.	.	Fig. 4, No. 7.
Room 17, b.	Sealing :	Senb . ef :	<i>Scribe of the Vezir</i>	.	„	3.
„ 17, c.	„		<i>Coil pattern of Hyksos style.</i>			
„ 44, b.	„	Se . Ankh,	<i>Scribe of the Vezir.</i>			
„ 44.	„	Aa . em . Neter (? local king)		.	Fig. 4, No. 5.	
Tomb 30. Scarab :		Aa . em . Neter . Ra		.	„ 4, „ 6.	

Scarabs published in 'Annals,' XX

Tomb 31.	Uadj . Kheper . Ra (KA . MES)	.	.	.	Fig. 3, No. 1.
„ 31.	? A . a . Kha (? local king)	.	.	.	„ 3, „ 6.
„ 4.	A . a . Kha	„	.	.	Pl. XXVI, 1.
„ 5.	Maat . Ka . Ra (HATSHEPSUT)	.	.	.	„ 5.9.
„ 5.	Men . Kheper . Ra (THUTMOSE III)	.	.	.	„ 5.1.
Pit 11.	<i>ibid.</i>	.	.	.	<i>not published.</i>
Tomb 4.	Neb . Maat . Ra (AMENHETEP III)	.	.	.	Pl. XXVI, 4.7.

Only one scarab has been found of the later date and style, viz. that showing a deity upon the back of an animal, found with iron and bronze bracelets in the cremation pit, no. 11 (Fig. 11, T. 11, on p. 37 of *Annals*, XX).

HISTORICAL DEVELOPMENT OF THE PALACE AREA

In proceeding now to arrange these varied items of evidence in an attempt to summarise the conclusions towards which they point, we

may note the absence of a definite inferior limit to the foundations of the Palace and also of a superior limit to the retaining wall CC. Subject, however, to a final scrutiny of the records (which fill seven notebooks), and any further evidence on these and other minor points as a result of the fifth expedition now being organised, the following seems to have been the order of development, with an approximate chronology, to be regarded, however, for the time being, as relative rather than absolute.

LOWER STRATUM. Middle Bronze Age ii

- c. 1800 B.C. Layer *d* underlying the Storerooms.
- c. 1700 ,, *Hyksos Period*. Storerooms, deposits of layer *c*.
- c. 1600 ,, { Burning of Storerooms, *c* ; (destruction of *City C*).
- KA . MES { Reconstruction of Storerooms, layer *b*.
- { (?) Construction of Palace (80). (*City D*.)

Transitional Culture

- c. 1525 B.C. Destruction of Storerooms *b* ; (? also lower Palace).
- Short attrition period *a*.

MIDDLE STRATUM. Late Bronze Age i

- c. 1500 B.C. { Site raked down to Room 43. Retaining wall AA.
- HATSHEPSUT, { (Re-)construction of Palace 80.
- THUTMOSE III { House 60. (?) Storeroom 70, *a*.
- { Slope vacant (deposit *f*, etc.).
- c. 1425 B.C. { Destruction of Palace : earthquake and subsidence.
- { Layer of debris down slope (lower 'Streak').
- { Slope terraced. Retaining wall BB.
- { Construction of M. building. Enclosing wall AA.
- c. 1400-1390 B.C. { Destruction and burning of all buildings of *City D*.
- AMENOPHIS III { Long period of attrition (upper 'Streak'). Inter-
- { mittent occupation.

UPPER STRATUM. Early Iron Age i

- c. 1200 B.C. Partial occupation (especially at the north end). Buildings in H. 6 (area 60). Pit 11.
- c. 1000 ,, 'Hilani' block-house.
- c. 900 ,, City walls restored (north end). (*City E*.)

ORGANISATION

The work was carried out by a team of zealous volunteers, which included as architect and first excavator Mr. John Richmond, B.A.; as assistant excavators Mr. Thomas Hodgkin, B.A., and for part of the time Mr. R. M. Fergusson. Each worker kept his own records, and Miss Meroë Garstang kept the registers and supervised the clearing of tomb deposits. Mrs. Garstang conducted the camp and directed the laboratory work, and the recovery of many objects from seemingly hopeless quantities of fragments was the reward of her skill and organisation. Boulos Effendi Araj acted as Clerk of Works, and helped with the surveying and drew most of the pottery. Dr. Aage Schmidt helped with the photography and detailed notes. Miss M. Ratcliffe, Secretary of the Institute of Archaeology, has prepared the plans and drawings for this publication.

The excavations were carried out under the continued patronage of Sir Charles Marston, with the collaboration of the University Museums of Aberystwyth (through Dr. Davies Bryan) and of Aberdeen (through the Wilson Trust) and of Glasgow (the Hunterian Museum); also of the City Museum of Leeds and the Musées Nationaux du Louvre (Paris). Thanks to the generosity of Sir Charles Marston, these institutions received the bulk of the antiquities not retained in the Palestine Museum at Jerusalem, as shown in the following schedules.

JERUSALEM : Palestine Museum

From the City Storerooms.

The contents of Rooms 17, 18, 36, 38, 40, 43 (Scarabs), 71 (M. II-1) and 72 (M. II-2). Objects **Nos. 45, 113, 116, 138 bis, 147, 153, 183, 184, 186, 190, 209, 303, 207**, and 8 stamped jar handles—4 from 44. c, 1 from 44. b, 2 from 17 and 1 from 43. A selection of Cypriote sherds (lent) and a selection of characteristic painted pottery.

From the Tombs.

Tombs 25, 30, 31, 43 and **Nos. 17, 31 and 75** from Tomb 20.

ABERYSTWYTH : University Museum

From the City Storerooms.

No. 80, Juglet (32.1), Pl. XXI, 18; **No. 106**, Dish (37.4); **No. 107**, Juglet (37.3); **No. 165**, Jug (45.2), Pl. XX, 15; **No. 166**, Jug (46.1),

Pl. XX, 16 ; **No. 167**, Juglet (46·2), Pl. XX, 18 ; **No. 170**, Juglet (47·1), Pl. XX, 19 ; **No. 171**, Dish (47·2) ; **No. 172**, Bowl (47·3), Pl. XX, 20 ; **No. 173**, Dish (47·4), Pl. XX, 23 ; **No. 174**, Lamp (47·5) ; **No. 175**, Jug (48·1) ; **No. 194**, Jug (63·2), Pl. XXIV, 7 ; **No. 195**, Bowl (63·3), Pl. XXIV, 11 ; **No. 196**, Dish (63·4), Pl. XXIV, 14 ; **No. 198**, Dish (63·6), Pl. XXIV, 13 ; **No. 202**, Juglet (64·1) ; **No. 204**, Faience (64·3) ; **No. 205**, Dish (64·4) ; **No. 290**, Jug (I. 5·2) ; **No. 294**, Dish (58), Pl. XXIV, 16 ; **No. 295**, Juglet (58) ; **No. 296**, Jug (58), Pl. XXIV, 18 ; **No. 305**, Juglet (K. 4·2) ; **No. 306**, Jug (E. 7·1) ; **No. 308**, Jug (E. 7·3) ; **No. 309**, Bottle (E. 7·4) ; **No. 310**, Juglet (E. 7·5) ; **No. 224**, Juglet (72), Pl. XXV, 8.

From the Tombs (not yet published).

J. 33. Catalogue **Nos. 5, 6, 16, 18, 20, 22, 27, 30, 32, 37, 43, 46, 50, 57, 62 and 71.**

GLASGOW : Hunterian Museum

From the City Storerooms.

No. 208, Scarab (64), Fig. 4, no. 8 ; **No. 276**, Jar-stamp (73) ; **No. 86**, Jar-stamp (32·7) ; **No. 77**, Jug (31·1), Pl. XXI, 13 ; **No. 78**, Amphora (31·2), Pl. XXI, 14 ; **No. 62**, Jug (29·6), Pl. XX, 3 ; **No. 111**, Amphora (39·1) ; **No. 117**, Grindstone (39·7), Pl. XXII, 13 ; **No. 118**, Jug (39·8), Pl. XXII, 11 ; **No. 139**, Jug (44·1), Pl. XXIII, 1 ; **No. 140**, Jug (44·2), Pl. XXIII, 2 ; **No. 141**, Bowl (44·3), Pl. XXIII, 7 ; **No. 142**, Jug (44·4), Pl. XXIII, 3 ; **No. 143**, Jug (44·5), Pl. XXIII, 4 ; **No. 144**, Jug (44·6), Pl. XXIII, 10 ; **No. 145**, Vase (44·7), Pl. XXIII, 9 ; **No. 146**, Dish (44·8), Pl. XXIII, 8 ; **No. 149**, Jug (44·11) ; **No. 151** (44·13) ; **No. 152**, Jug (44·14), Pl. XXIII, 12 ; **No. 154**, Jug (44·16), Pl. XXIII, 14 ; **No. 155**, Jug (44·17) ; **No. 206**, Juglet (64·5).

From the Tombs (not yet published).

J. 33. Catalogue **Nos. 94 bis, 379, 380, 381, 382, 383 and 384.**

LEEDS : City Museum

From the City Storerooms.

No. 91, Pin (31·1 *bis*) ; **No. 92**, Bronze (33·3) ; **No. 201**, Grinder (63·9) ; **No. 229**, Dish (73·1), Pl. XXVI, 28 ; **No. 230**, Dish (73·2) ; **No. 231**, Bowl (73·3), Pl. XXVI, 27 ; **No. 234**, Jug (73·6), Pl. XXVI, 1 ; **No. 235**, Jug (73·7) ; **No. 239**, Jug (73·11) ; **No. 249**, Jug (73·21) ;

No. 255, Bowl (73·27), Pl. XXVI, 20 ; **No. 265**, Dish (73·37), Pl. XXVI, 24 ; **No. 266**, Dish (73·38), Pl. XXVI, 21 ; **No. 267**, Dish (73·39), Pl. XXVI, 22 ; **No. 269**, Dish (73·41) ; **No. 272**, Dish (73·44) ; **No. 278**, Bead (73·50) ; **No. 285**, Lamp (H. 5·4) ; **No. 079**, Grinder (H. 6).

From the Tombs (not yet published).

J. 33. Catalogue **Nos. 9, 12, 35, 40, 56, 60, 72, 74, 78, 79, 86, 90, 94 bis, 308, 335, 337 and 352.**

Marston Collection

From the City Storerooms.

No. 281, Scarab (76·3), Fig. 4, no. 4 ; **No. 031**, Jar stamp (31. a) ; **No. 44**, Grindstone (11·1), Pl. XIX, 2 ; **No. 182**, Goblet (60. a. 1), Pl. XXIV, 6 ; **No. 87**, Saucers (Kiln 1) ; **No. 162**, Dagger (44·24), Pl. XXIII, 6 ; **No. 176**, Jug (57·1) ; **No. 197**, Dish (63·5) ; **No. 199**, Goblet (63·7) ; **No. 222**, Mortar (71·9), Pl. XXV, 19 ; **No. 233**, Amphora (73·5), Pl. XXVI, 4 ; **No. 237**, Vase (73·9), Pl. XXVI, 14 ; **No. 241**, Cup (73·13), Pl. XXVI, 12 ; **No. 242**, Cup (73·14), Pl. XXVI, 13 ; **No. 243**, Vase (73·15), Pl. XXVI, 15 ; **No. 250**, Jug (73·22) ; **No. 256**, Jug (73·25) ; **No. 268**, Dish (73·40) ; **No. 280**, Lamp (76·2) ; **No. 291**, Bowl (58), Pl. XXIV, 15 ; **No. 293**, Bowl (58), Pl. XXIV, 17 ; **No. 299**, Astarte (M. V. 2·1), Pl. XLIII, 3.

From the Tombs (not yet published).

Catalogue **Nos. 91, 330, 336, 343 and 346.** Also 2 Scarabs from T. 32 and 1 from T. 20.

PARIS : Musées du Louvre

From the City Storerooms.

Nos. 46, 47, Scarabs (11), Fig. 4, nos. 1, 2 ; **No. 57**, Dish (29·1), Pl. XX, 12 ; **No. 85**, Jug (32·6) ; **No. 82**, Dagger (32·9) ; **No. 55**, Jug (28·1), Pl. XX, 1 ; **No. 115**, Jug (39·5), Pl. XXII, 10 ; **No. 035**, Bowl (35), Pl. XXII, 6 ; **No. 160**, Bowl (44·22) ; **No. 175 bis**, Bowl (48·2), Pl. XX, 21 ; **No. 188**, Handle (60·7) ; **No. 282**, Dish (H. 5·1), Pl. XXV, 2 ; **No. 288**, Jar (74·3), Pl. XXV, 5 ; **No. 232**, Jug (73·4), Pl. XXVI, 5 ; **No. 238**, Goblet (73·10), Pl. XXVI, 10 ; **No. 245**, Goblet (73·17), Pl. XXVI, 9 ; **No. 246**, Bowl (73·18) ; **No. 259**, Bird vase (73·31), Pl. XXVI, 8 ; **No. 260**, Jar (73·32) ; **No. 266**, Dish (73·38), Pl. XXVI, 21 ; **No. 273**, Vase (73·45), Pl. XXVI, 6 ; **No. 275**, Faience (73·47) ; **No. 277**, Bronze (73·49), Pl. XXVI, 19.

From the Tombs (not yet published).

Catalogue **Nos. 297, 299, 300, 301, 303, 304, 305, 306, 307, 310, 311, 312, 313, 315, 316, 317, 318, 319, 320, 321, 323, 324, 325, 326, 327, 329, 332, 334, 339, 340, 341, 342, 344, 346, 347, 348, 351, 353, 354, 355, 356, 358, 361, 363, 364, 367, 366 bis and 398.**

PARIS : Rothschild Collection

From the City Storerooms.

No. 81, Goblet (32·2), Pl. XXI, 16 ; **No. 86**, Jar seal (32·7) ; **No. 93**, Jug (34·1) ; **No. 213**, Jug (68·2), Pl. XXV, 16 ; **No. 283**, Juglet (H. 5·2), Pl. XXV, 6 ; **No. 284**, Bowl (H. 5·3) ; **No. 282**, Dish (H. 5·1), Pl. XXV, 2 ; **No. 83**, Jug (32·4), Pl. XXI, 23 ; **No. 179**, Jug (59·2).

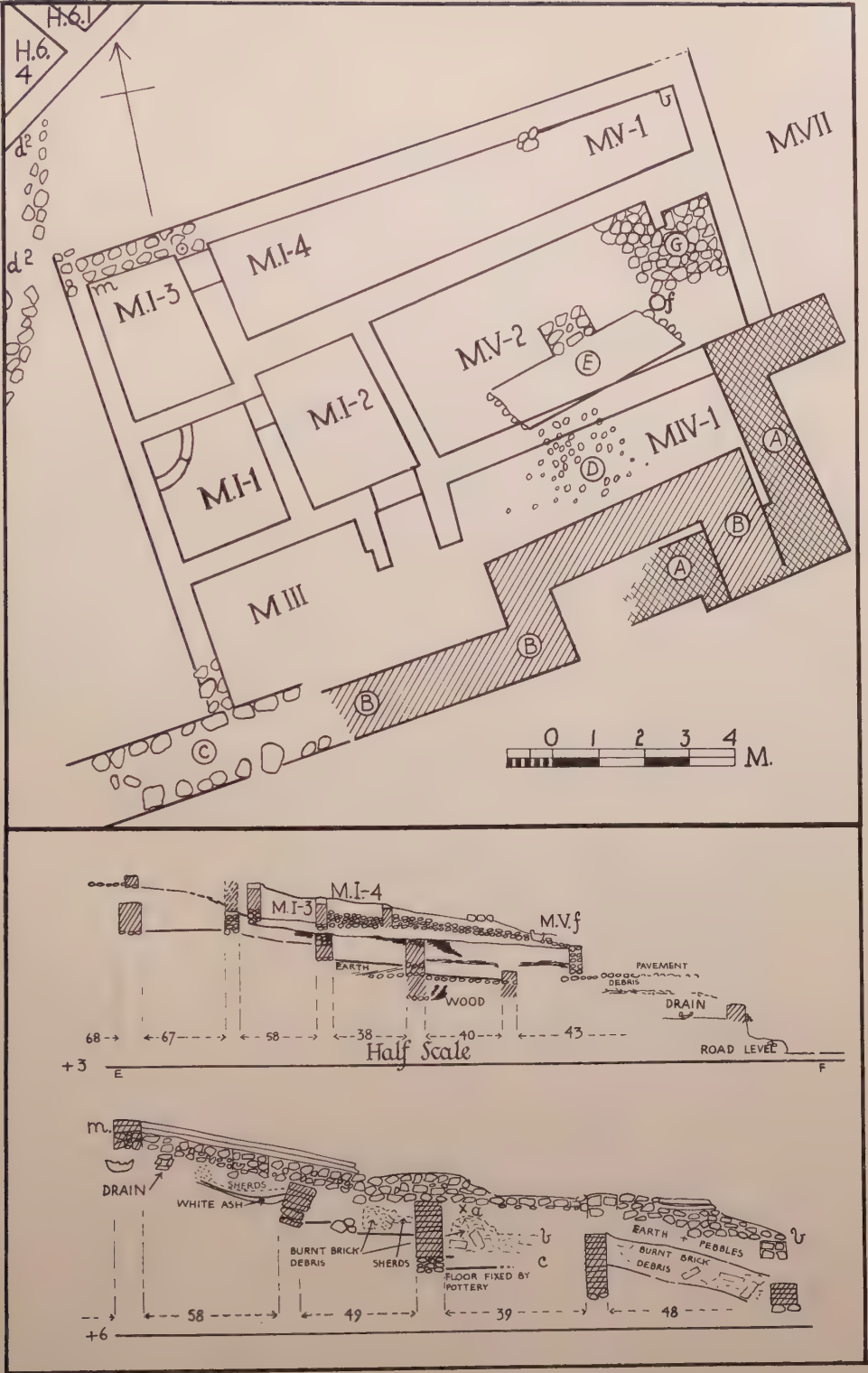
From the Tombs (not yet published).

Catalogue **Nos. 38, 59, 77, 93, 238, 472 and 482.**

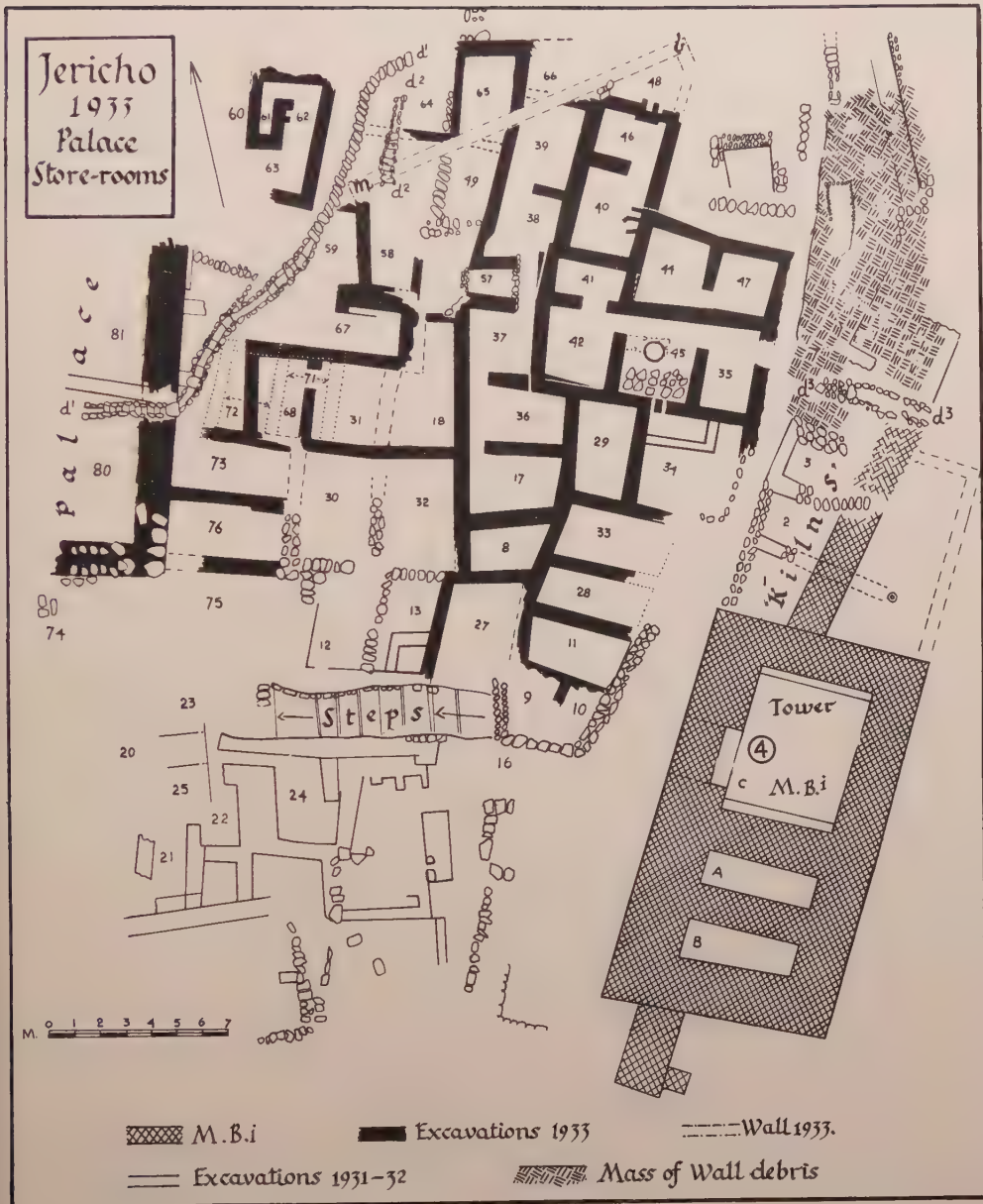


J.33. COMPOSITE PLAN OF SUPERIMPOSED BUILDINGS IN THE PALACE AREA.

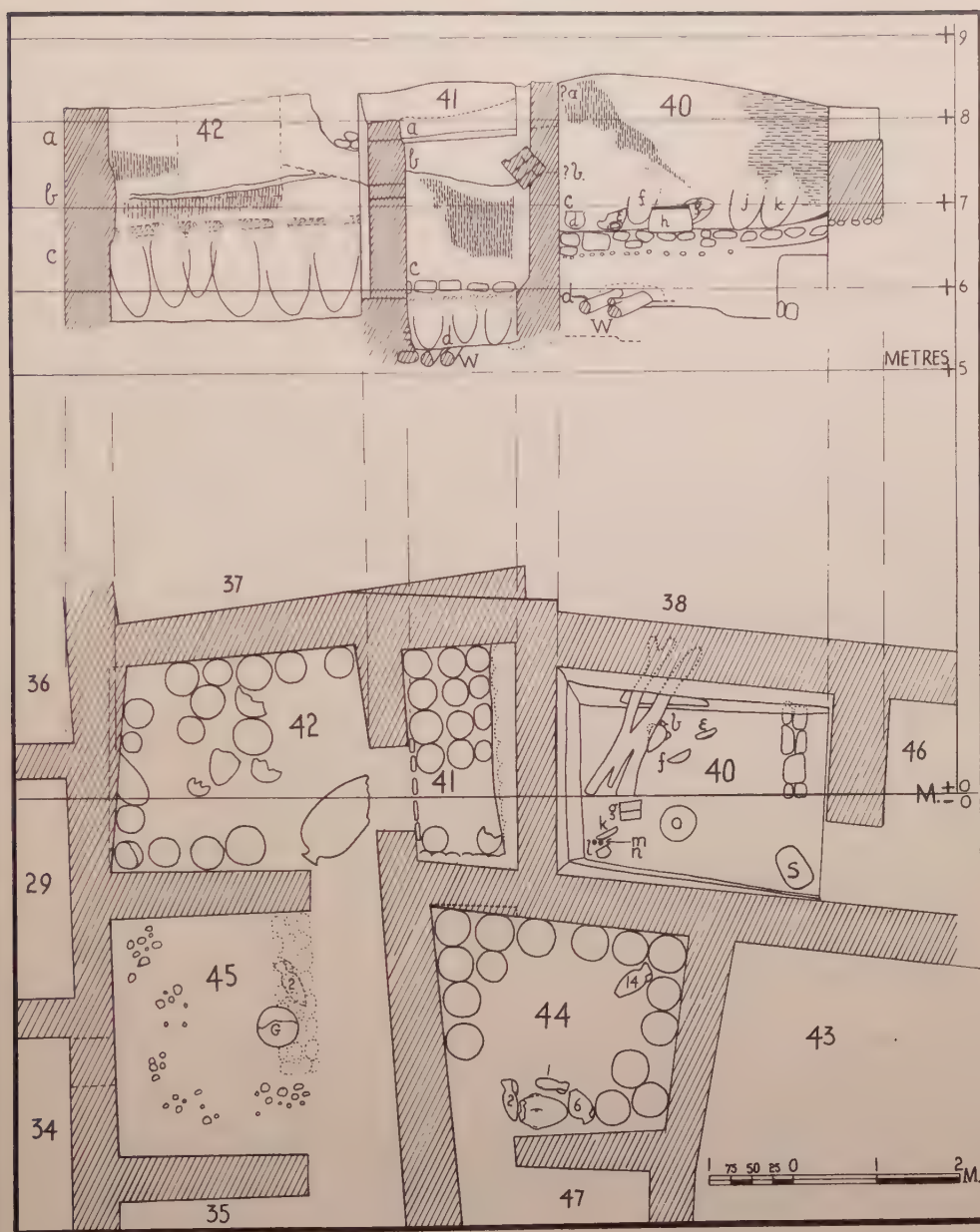
- | | |
|---|--|
| 1. PALACE STORE-ROOMS (M.B. II). | 5. "HILANI" OVER MIDDLE BUILDING. |
| 2. MIDDLE BUILDING (LBA.) | 6. "HILANI" OVER PALACE STORE-ROOMS. |
| 3. MIDDLE BUILDING OVER PALACE STORE-ROOMS. | 7. "HILANI" OVER MIDDLE BUILDING AND PALACE STORE-ROOMS. |
| 4. "HILANI" (E.I.A. I). | 8. HOUSE IN SQUARE H.B. |



J 33. PLAN OF MIDDLE BUILDING (M): SECTIONS EF, MB, SHOWING ROOMS BELOW.



J 33. PLAN OF PALACE STORE ROOMS (M.B.II) AND GATE TOWER (M.B.I).



J.33. PLAN OF STORE-ROOMS, 40-45, AND SECTIONS OF ROOMS 42-41-40 SHOWING STRATA AND DEPOSITS.

Jericho, 1931

TOWER AREA, SQUARES K6 AND L6, GARDEN

1. Cat. No. 37. Red ware, large rim; horiz. burnish int. K.6.
2. Cat. No. 34. Grey ware, some grit; 2 black burnish. E. of Kith 3.
3. Cat. No. 71. Lt. brown ware, some grit. K.6.
4. Cat. No. 57. Lt. red ware, drab core, rather powdery. L.6.
5. Cat. No. 33. Lt. red ware; burnish. W. of Tower, near N.W. corner. L.6.
6. Cat. No. 28. Lt. red ware; burnish.
7. Cat. No. 30. Lt. red ware; burnish.
8. Cat. No. 2. Alabaster dish with four rings, heads carved on rim.
9. Cat. No. 31. Lt. red ware; burnish.
10. Cat. No. 20. Grey ware; burnish. S.W. corner of Tower. K.6.
11. Cat. No. 84. Red ware; white slip burnish. W. Tower house. L.6.
12. Cat. No. 3. Lt. red ware; burnish.
13. Cat. No. 1. Buff ware; light yellow slip.
14. Cat. No. 32. Tan ware; wet slip.
15. Cat. No. 15. Greenish buff ware; wet slip. K.6.
16. Cat. No. 17. Grey ware; black vert. burnish. K.6.
17. Cat. No. 35. Lt. red ware; burnish. K.6.
18. Cat. No. 36. Lt. red ware; burnish. L.6.
19. Cat. No. 38. Lt. red ware; burnish. L.6.
20. Cat. No. 39. Lt. red ware; burnish. L.6.

Notes: The following are the results of the examination of the pottery found in the garden area of the tower. The pottery is of the same type as that found in the tower area, and is of the same date. The pottery is of the same type as that found in the tower area, and is of the same date. The pottery is of the same type as that found in the tower area, and is of the same date.

JERICHO, 1931.

PLATE XVII. DESCRIPTION OF POTTERY VESSELS FROM TOWER AREA, SQUARES K.6 AND I.6. (M.B.ii).

No.

- | | | |
|-----|---|------|
| 1. | Cat. No. 37. Red ware, large grits; horiz. burnish int. | K.6. |
| 2. | Cat. No. 64. Grey ware, some grit; ? black burnish. E. of Kiln 3. | K.6. |
| 3. | Cat. No. 71. Lt. brown ware, some grit. | K.6. |
| 4. | Cat. No. 67. Lt. red ware, drab core, rather powdery. | I.6. |
| 5. | Cat. No. 33. Lt. red ware; burnished.
W. of Tower, near N.W. corner. | I.6. |
| 6. | Cat. No. 28. Lt. red ware; burnished. | |
| 7. | Cat. No. 85. Lt. red ware; white slip burnished. Tower house. | I.6. |
| 8. | Cat. No. 2. Alabaster dish with four rams' heads carved on rim. | |
| 9. | Cat. No. 69. Lt. red ware; wet-sm. West of Tower. | I.7. |
| 10. | Cat. No. 29. Grey ware; burnished. S.W. corner of Tower. | K.6. |
| 11. | Cat. No. 84. Red ware; white slip burnished. W. Tower house. | I.6. |
| 12. | Cat. No. 4. Brick ware, fine grit, wh.m.; cream slip horiz. burnished. | |
| 13. | Cat. No. 1. Buff ware; light yellow slip. | K.6. |
| 14. | Cat. No. 34. Tan ware; wet-sm. | |
| 15. | Cat. No. 15. Creamish buff ware; wet-sm. | K.6. |
| 16. | Cat. No. 17. Grey ware; black vert. burnish. | K.6. |
| 17. | Cat. No. 16. Lt. yellow ware; wet-sm. | K.6. |
| 18. | Cat. No. 65. Grey ware; wet-sm. | I.6. |
| 19. | Cat. No. 66. Grey ware; brown slip burnished; white punctuated. | I.6. |
| 20. | Cat. No. 76. Light red ware; wet-sm. | I.6. |

Contractions used in the following schedules.

wh.m. = wheel made.	vert. = vertically.	int. = interior.
hand m. = hand made.	horiz. = horizontally.	ext. = exterior.
wet-sm. = wet-smoothed.	lt. = light.	dec. = decoration.

The schedules are as follows:

Number of object on Plate.

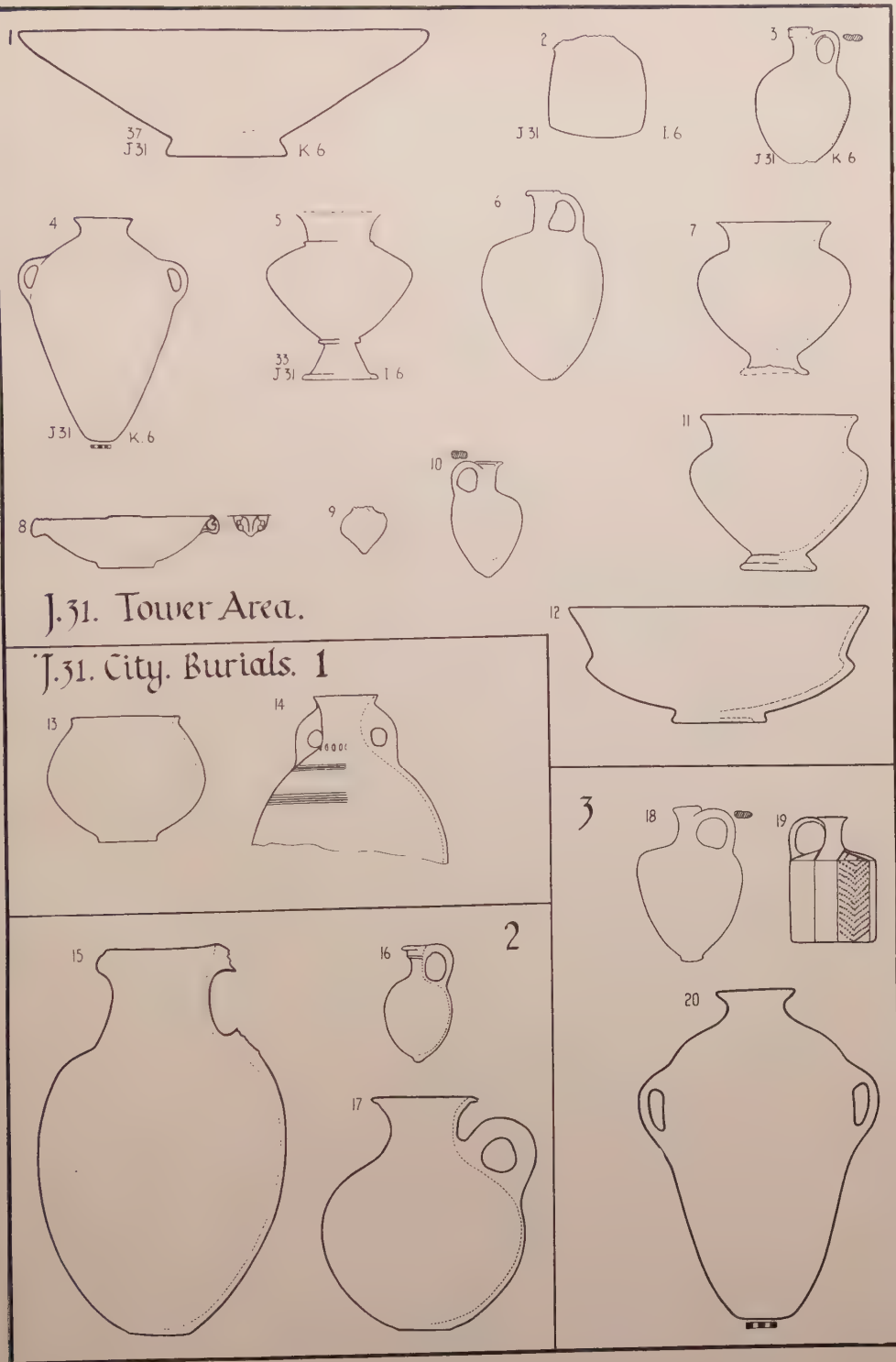
Description of object.

() Excavation registration, if different from provenance.

Provenance.

The scale at the foot of each Plate refers to all objects on that Plate unless shown otherwise.

All the Plates of painted fragments are reduced to one-third actual size.

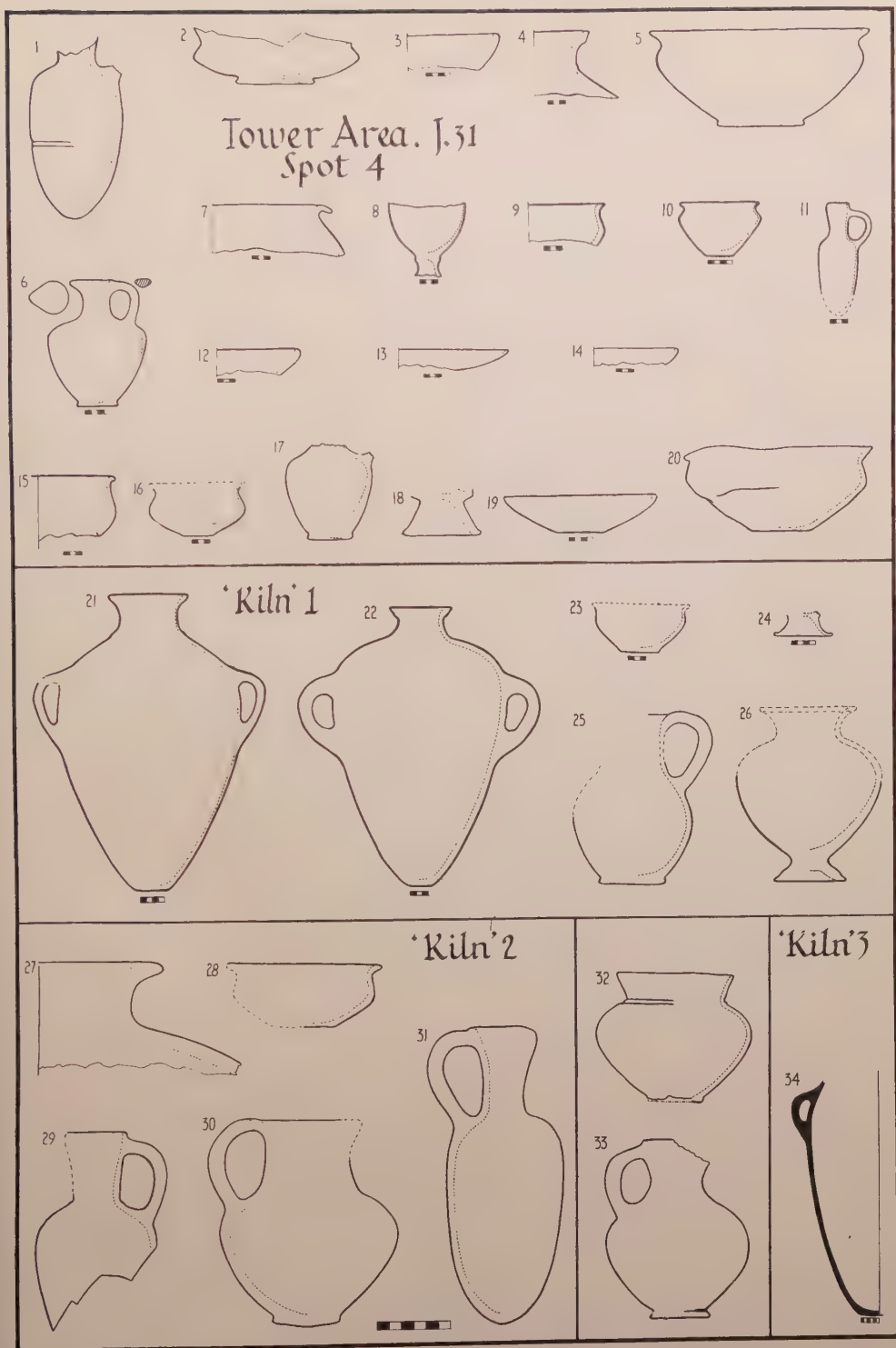


J.31. POTTERY VESSELS FROM TOWER AREA AND ASSOCIATED CHILD-BURIALS.

JERICHO, 1931.

PLATE XVIII. DESCRIPTION OF POTTERY VESSELS FROM TOWER TOP (SPOT 4) AND PALACE STORE-ROOMS 1, 2 AND 3 ("KILNS") (M.B.ii-L.B.i).

No.		
1.	Tan ware, few large grits; wet-sm.	Tower 4.
2.	Lt. red ware; white slip burnished.	T.4.
3.	Lt. brown ware, small grey grits; wet-sm.	T.4.
4.	Buff surfaces, lt. grey core, small grits; wet-sm.	T.4.
5.	Tan ware, wet-sm.; surface discoloured.	T.4.
6.	Lt. red ware, many large grits.	T.4.
7.	Buff ware, lt. brown core, medium grits; wet-sm.	T.4.
8.	Lt. brown ware, few small grits; white slip burnished.	T.4.
9.	Buff ware, lt. grey core, medium grits; wet-sm.; burnish int.	T.4.
10.	Lt. red ware, grey core, gritty; yellowish slip.	T.4.
11.	Lt. red ware, fine grits.	T.4.
12.	Buff surface, lt. brown core, medium white grits; wet-sm.	T.4.
13.	Fragmentary, fine gritty ware.	T.4.
14.	Lt. brown ware, medium grey grits; wet-sm.	T.4.
15.	Lt. red ware, medium grits; traces of red slip int.	K.6.
16.	Drab ware, wet-sm.; surface discoloured.	Near T.4 K.6.
17.	Lt. red ware, fine grits; cream slip vert. burnished (near T.4)	K.6.
18.	Lt. red ware, few grits; wet-sm. or possibly cream slip.	Near T.4.
19.	Cat. No. 68. Drab ware, large grits; cream slip burnished.	T.4.
20.	Greyish yellow ware; possibly cream slip.	S.E. of Kilns. K.6.
21.	Cat. No. 76. Lt. red ware, grey core, few grits; wet-sm.	Kiln 1.
22.	Lt. brown ware, small grey grits; wet-sm.	Kiln 1.
23.	Lt. red ware, buff core; wet-sm.; grey surface ext.	Kiln 1.
24.	Buff ware, fine grits; cream slip.	Kiln 1.
25.	Buff ware, few large grits; wet-sm.	Kiln 1.
26.	Lt. red ware; white slip probably burnished.	Kiln 1.
27.	Greyish black ware, large white grits; wh.m. hard.	Kiln 2.
28.	Lt. brown ware, medium grits; wet-sm.	Kiln 2.
29.	Buff ware, few small grits; cream slip.	Kiln 2.
30.	Cat. No. 63. Yellow ware, gritty; surface burnt rough.	Kiln 2.
31.	Red ware, gritty, powdery; burnt surface.	Kiln 2.
32.	Cat. No. 72. Lt. red ware, fine, few grits; tan slip burnished.	Kilns front. I.6.
33.	Red ware, some fine grit; white slip; burnt.	E. of Kilns. I.6.
34.	Cat. No. 73. Lt. red ware, many large grits; wet-sm.	Kiln 3.



J.31. POTTERY VESSELS FROM DEPOSIT (SPOT 4) ON TOWER, AND STORE ROOMS (KILNS) 1-3.

ERICHO. 1932-3.

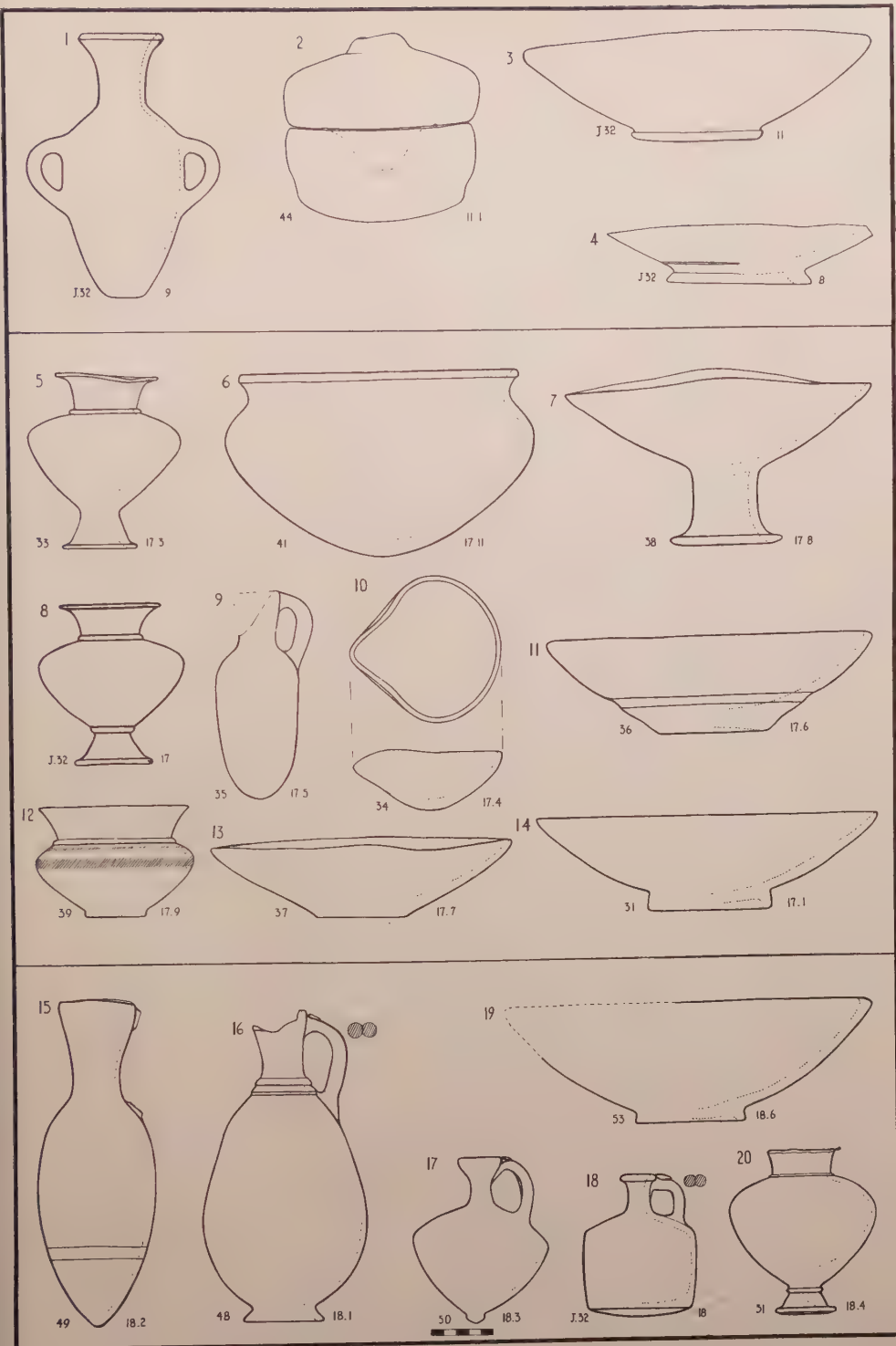
PLATE XIX. DESCRIPTION OF POTTERY VESSELS ETC. FROM
PALACE STONE-ROOMS 8-18. (MOSTLY M.B.H.)

1. Cat. No. 41. Grindstone and grinder, black stone.
2. Cat. No. 33. Goblet, drab ware, wh. m.; white slip border, burnished.
3. Cat. No. 41. Bowl, red ware, much grit, wh. m.
4. Cat. No. 33. Goblet, drab ware, wh. m.; white slip border, burnished.
5. Cat. No. 35. Jug, drab ware, fine; white slip.
6. Cat. No. 34. Lamp, drab ware; wet-sum; lip cracked.
7. Cat. No. 36. Bowl, drab ware; blackened throughout by smoke.
8. Cat. No. 37. Goblet, drab ware, wh. m.; drab slip burnished.
9. Cat. No. 38. Goblet, drab ware, wh. m.; white slip border, burnished.
10. Cat. No. 39. Goblet, drab ware, wh. m.; white slip border, burnished.
11. Cat. No. 40. Goblet, drab ware, wh. m.; white slip border, burnished.
12. Cat. No. 42. Goblet, drab ware, wh. m.; white slip border, burnished.
13. Cat. No. 43. Goblet, drab ware, wh. m.; white slip border, burnished.
14. Cat. No. 44. Goblet, drab ware, wh. m.; white slip border, burnished.
15. Cat. No. 45. Goblet, drab ware, wh. m.; white slip border, burnished.
16. Cat. No. 46. Goblet, drab ware, wh. m.; white slip border, burnished.
17. Cat. No. 47. Goblet, drab ware, wh. m.; white slip border, burnished.
18. Cat. No. 48. Goblet, drab ware, wh. m.; white slip border, burnished.
19. Cat. No. 49. Goblet, drab ware, wh. m.; white slip border, burnished.
20. Cat. No. 50. Goblet, drab ware, wh. m.; white slip border, burnished.
21. Cat. No. 51. Goblet, drab ware, wh. m.; white slip border, burnished.
22. Cat. No. 52. Goblet, drab ware, wh. m.; white slip border, burnished.
23. Cat. No. 53. Goblet, drab ware, wh. m.; white slip border, burnished.
24. Cat. No. 54. Goblet, drab ware, wh. m.; white slip border, burnished.
25. Cat. No. 55. Goblet, drab ware, wh. m.; white slip border, burnished.
26. Cat. No. 56. Goblet, drab ware, wh. m.; white slip border, burnished.
27. Cat. No. 57. Goblet, drab ware, wh. m.; white slip border, burnished.
28. Cat. No. 58. Goblet, drab ware, wh. m.; white slip border, burnished.
29. Cat. No. 59. Goblet, drab ware, wh. m.; white slip border, burnished.
30. Cat. No. 60. Goblet, drab ware, wh. m.; white slip border, burnished.
31. Cat. No. 61. Goblet, drab ware, wh. m.; white slip border, burnished.
32. Cat. No. 62. Goblet, drab ware, wh. m.; white slip border, burnished.
33. Cat. No. 63. Goblet, drab ware, wh. m.; white slip border, burnished.
34. Cat. No. 64. Goblet, drab ware, wh. m.; white slip border, burnished.
35. Cat. No. 65. Goblet, drab ware, wh. m.; white slip border, burnished.
36. Cat. No. 66. Goblet, drab ware, wh. m.; white slip border, burnished.
37. Cat. No. 67. Goblet, drab ware, wh. m.; white slip border, burnished.
38. Cat. No. 68. Goblet, drab ware, wh. m.; white slip border, burnished.
39. Cat. No. 69. Goblet, drab ware, wh. m.; white slip border, burnished.
40. Cat. No. 70. Goblet, drab ware, wh. m.; white slip border, burnished.
41. Cat. No. 71. Goblet, drab ware, wh. m.; white slip border, burnished.
42. Cat. No. 72. Goblet, drab ware, wh. m.; white slip border, burnished.
43. Cat. No. 73. Goblet, drab ware, wh. m.; white slip border, burnished.
44. Cat. No. 74. Goblet, drab ware, wh. m.; white slip border, burnished.
45. Cat. No. 75. Goblet, drab ware, wh. m.; white slip border, burnished.
46. Cat. No. 76. Goblet, drab ware, wh. m.; white slip border, burnished.
47. Cat. No. 77. Goblet, drab ware, wh. m.; white slip border, burnished.
48. Cat. No. 78. Goblet, drab ware, wh. m.; white slip border, burnished.
49. Cat. No. 79. Goblet, drab ware, wh. m.; white slip border, burnished.
50. Cat. No. 80. Goblet, drab ware, wh. m.; white slip border, burnished.
51. Cat. No. 81. Goblet, drab ware, wh. m.; white slip border, burnished.
52. Cat. No. 82. Goblet, drab ware, wh. m.; white slip border, burnished.
53. Cat. No. 83. Goblet, drab ware, wh. m.; white slip border, burnished.
54. Cat. No. 84. Goblet, drab ware, wh. m.; white slip border, burnished.
55. Cat. No. 85. Goblet, drab ware, wh. m.; white slip border, burnished.
56. Cat. No. 86. Goblet, drab ware, wh. m.; white slip border, burnished.
57. Cat. No. 87. Goblet, drab ware, wh. m.; white slip border, burnished.
58. Cat. No. 88. Goblet, drab ware, wh. m.; white slip border, burnished.
59. Cat. No. 89. Goblet, drab ware, wh. m.; white slip border, burnished.
60. Cat. No. 90. Goblet, drab ware, wh. m.; white slip border, burnished.
61. Cat. No. 91. Goblet, drab ware, wh. m.; white slip border, burnished.
62. Cat. No. 92. Goblet, drab ware, wh. m.; white slip border, burnished.
63. Cat. No. 93. Goblet, drab ware, wh. m.; white slip border, burnished.
64. Cat. No. 94. Goblet, drab ware, wh. m.; white slip border, burnished.
65. Cat. No. 95. Goblet, drab ware, wh. m.; white slip border, burnished.
66. Cat. No. 96. Goblet, drab ware, wh. m.; white slip border, burnished.
67. Cat. No. 97. Goblet, drab ware, wh. m.; white slip border, burnished.
68. Cat. No. 98. Goblet, drab ware, wh. m.; white slip border, burnished.
69. Cat. No. 99. Goblet, drab ware, wh. m.; white slip border, burnished.
70. Cat. No. 100. Goblet, drab ware, wh. m.; white slip border, burnished.

JERICHO, 1932-3.

PLATE XIX. DESCRIPTION OF POTTERY VESSELS, ETC., FROM PALACE STORE-ROOMS 8-18. (MOSTLY M.B.ii.).

No.		
1.	J.1932 (19) Amphora, grey ware.	9
2.	Cat. No. 44. Grindstone and grinder, black stone.	11.1.
4.	J.1932. Base of bowl.	8
5.	Cat. No. 33. Goblet, drab ware, wh.m.; white slip horiz. burnished.	17.3.
6.	Cat. No. 41. Bowl, red ware, much grit. wh.m.	17.11.
7.	Cat. No. 38. Dish, brown ware, few grits; wh.m.; cross burnished.	17.8.
8.	J.1932 (17) Goblet, drab ware, wh.m.; drab slip burnished. (I-6) Room 17.	
9.	Cat. No. 35. Jug, drab ware, fine; white slip.	17.5.
10.	Cat. No. 34. Lamp, drab ware; wet-sm.; lip cracked.	17.4.
11.	Cat. No. 36. Bowl, drab ware; blackened throughout by burning.	17.6.
12.	Cat. No. 39. Bowl, buff ware, some black grits, wh.m.; white slip; brown dec.	17.9.
13.	Cat. No. 37. Dish, drab ware, few grits; burnt.	17.7.
14.	Cat. No. 31. Dish, pinkish ware, wh.m.; white slip.	17.1.
15.	Cat. No. 49. Jug, reddish ware, fine grits; white slip.	18.2.
16.	Cat. No. 48. Jug, drab ware, wh.m.	18.1.
17.	Cat. No. 50. Juglet, drab ware; black slip burnished.	18.3.
18.	Should read J.33., cylindrical juglet, buff ware; white slip burnished. N. of 18.	
19.	Cat. No. 53. Bowl, lt. brick ware, wh.m.; wet-sm.	18.6.
20.	Cat. No. 51. Goblet, drab ware, wh.m.; white slip burnished; part perished.	18.4.

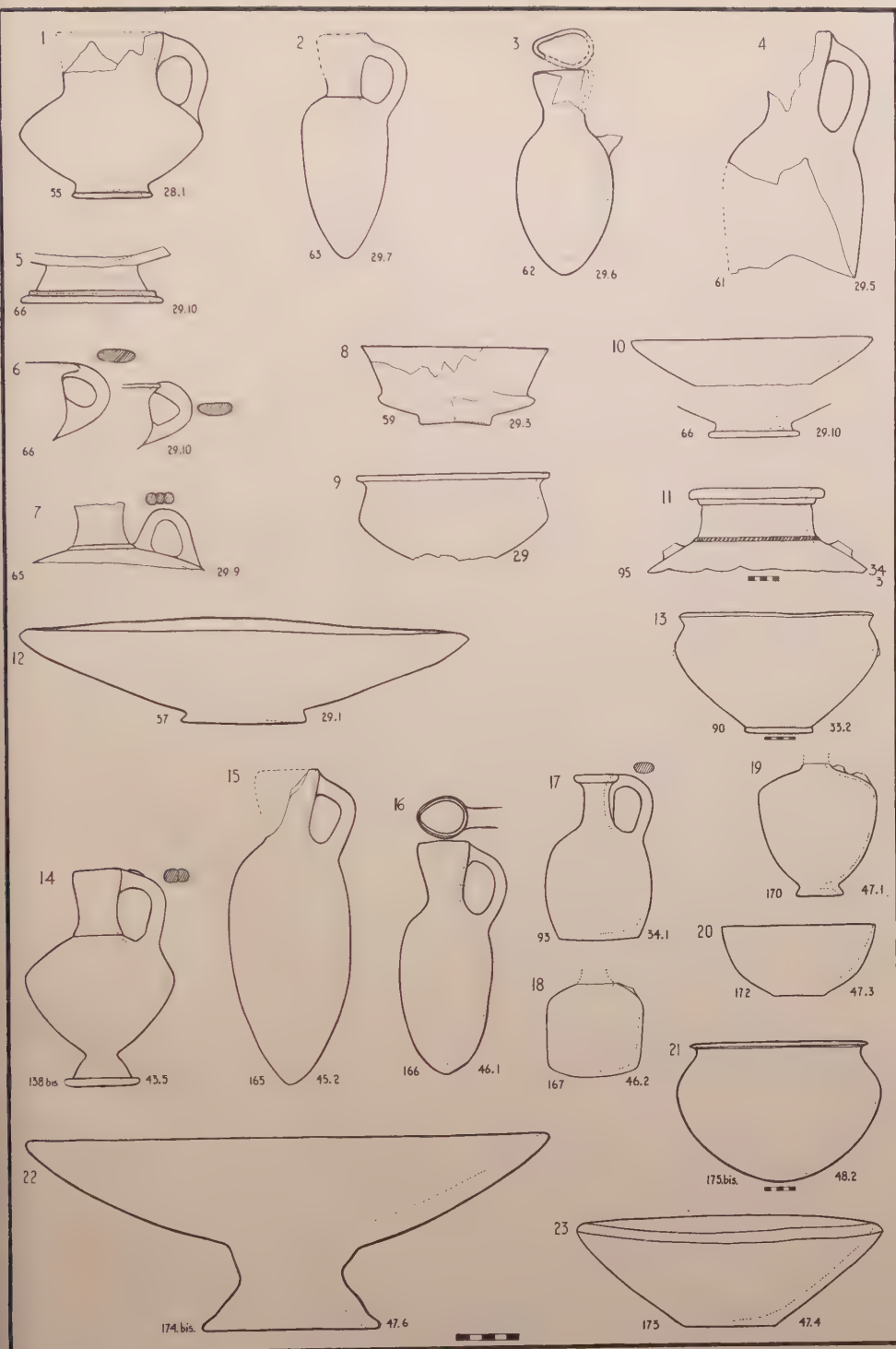


J.32-33. POTTERY FROM PALACE STORE ROOMS 8-18 AND ASSOCIATED DEPOSITS.

JERICHO, 1933.

PLATE XX. DESCRIPTION OF POTTERY VESSELS FROM PALACE STORE-ROOMS 28-48 (M.B.ii.).

No.			
1.	Cat. No. 55.	Jug, drab ware, flinty grits; coarse.	28.1.
2.	Cat. No. 63.	Jug, grey ware; rough surface.	29.7.
3.	Cat. No. 62.	Jug, white ware.	29.6.
4.	Cat. No. 61.	Jug, white ware; broken.	29.5.
7.	Cat. No. 65.	Neck of jug, int. burnt red; white slip.	29.9.
8.	Cat. No. 59.	Dish, grey ware, fine, wh.m.; greyish slip.	29.3.
9.		Fragments of Bowl, gritty, drab ware.	29.
10.	Cat. No. 66.	Fragment.	29.10.
11.	Cat. No. 95.	Neck of large vessel.	34.3.
12.	Cat. No. 57.	Dish, grey ware, gritty, wh.m.; red surface.	29.1.
13.	Cat. No. 90.	Bowl, drab clay, few grits; broken.	33.2.
14.	Cat. No. 138 bis.	Jug, pinkish ware; cream slip.	43.5.
15.	Cat. No. 165.	Jug, drab ware, fine grit, wh.m.	45.2.
16.	Cat. No. 166.	Jug, drab ware, wh.m.; wet-sm.	46.1.
17.	Cat. No. 93.	Cyl. juglet, red brick ware, few grits; red slip burnished.	34.1.
18.	Cat. No. 167.	Cyl. juglet, grey ware; grey slip burnished.	46.2.
19.	Cat. No. 170.	Juglet, lt. brick ware, wh.m.; cream slip burnished.	47.1.
20.	Cat. No. 172.	Bowl, yellowish drab ware, gritty; originally smooth.	47.3.
21.	Cat. No. 175 bis.	Bowl, red ware, black grit, wh.m.; coarse.	48.2.
22.	Cat. No. 174 bis.	Dish with pedestal.	47.6.
23.	Cat. No. 173.	Dish, drab ware, wh.m.; burnt.	47.4.



J.33. POTTERY VESSELS FROM PALACE STORE ROOMS 28, 29, 33, 34, 43, 45-48.

Jericho, 1933.

PLATE XII. DESCRIPTION OF NOTEDLY VESSEL FROM

Jericho, 1933.

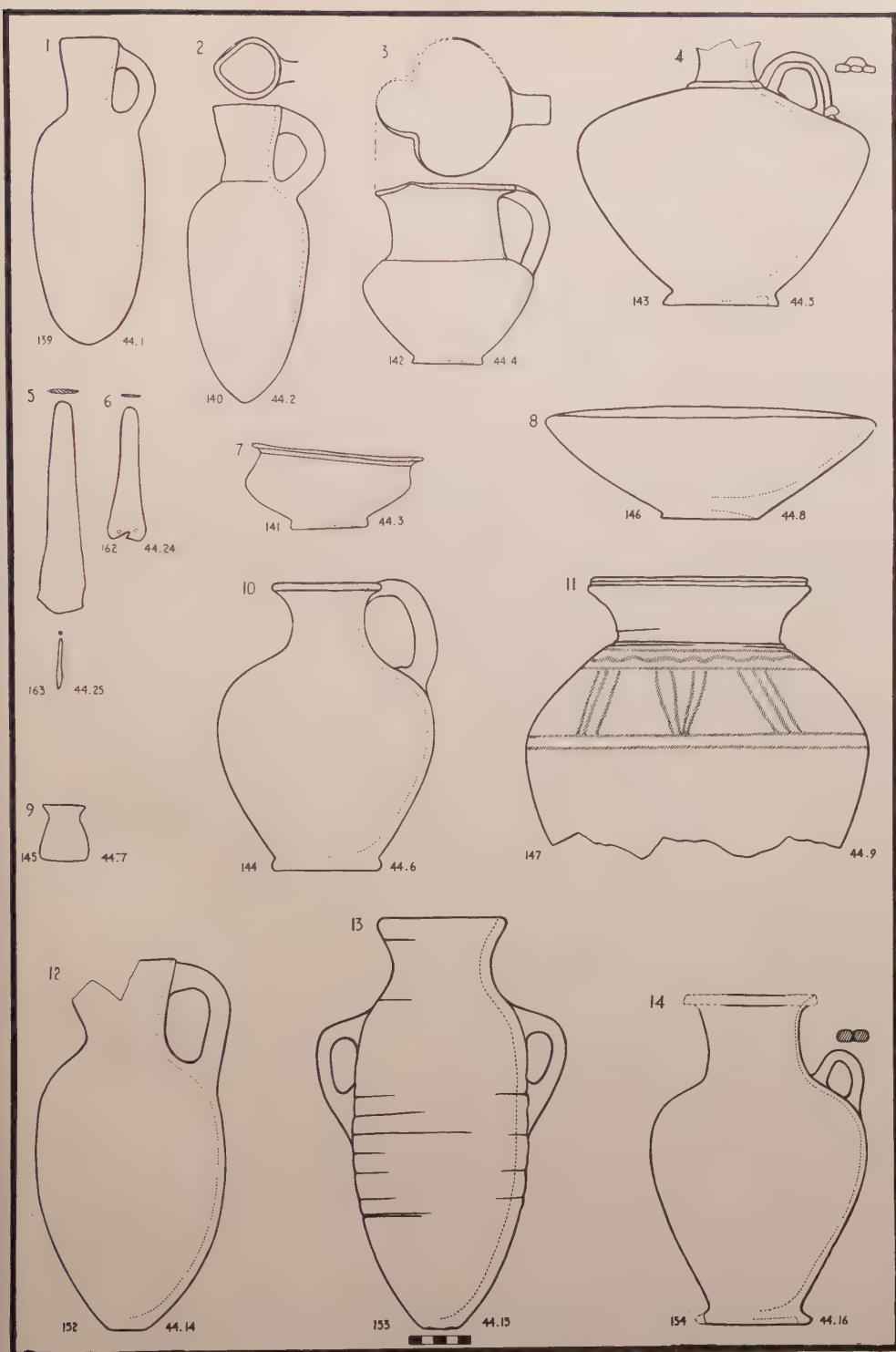
No.	
1.	Cat. No. 75. Goblet, pink ware, wh.m.; cream slip burnished. 30.9
2.	Cat. No. 69. Cup, lt. brick ware, wh.m.; lt. brick slip; burnt. 30.3
3.	Cat. No. 68. Cup, lt. brick ware, wh.m.; lt. brick slip. 30.2
4.	Cat. No. 74. Goblet, pink ware, wh.m.; cream slip. 30.8
5.	Cat. No. 73. Goblet, pink ware, wh.m.; cream slip. 30.7
6.	Cat. No. 76. Dish. Bowl, pink ware, wh.m.; wet-sm. 30.10 dia.
7.	Cat. No. 67. Dish, pink ware, wh.m.; wet-sm. 30.1
8.	Cat. No. 71. Jug, drab ware, wh.m.; cream slip burnished. 30.2
9.	Cat. No. 72. Jug, drab ware, wh.m.; cream slip burnished. 30.4
10.	Cat. No. 72. Cyl. juglet, lt. brick ware, wh.m.; wet-sm. 30.6
11.	Cat. No. 73. Cyl. juglet, lt. brick ware, wh.m.; wet-sm. 30.7
12.	Cat. No. 79. Grinding bowl, light coloured stone. 31.3
13.	Cat. No. 77. Top of jug, grey ware, wh.m.; lt. red slip; ? burnished. 31.1
14.	Cat. No. 78. Top of jug, grey ware, wh.m.; lt. red slip; ? burnished. 31.2
15.	Cat. No. 81. Jar, pink ware, wh.m.; cream slip burnished. 31.1
16.	Cat. No. 82. Jar, pink ware, wh.m.; cream slip burnished. 31.2
17.	Cat. No. 83. Jar, pink ware, wh.m.; cream slip burnished. 31.3
18.	Cat. No. 84. Jar, pink ware, wh.m.; cream slip burnished. 31.4
19.	Cat. No. 85. Jar, pink ware, wh.m.; cream slip burnished. 31.5
20.	Cat. No. 86. Jar, pink ware, wh.m.; cream slip burnished. 31.6

JERICHO, 1933.

PLATE XXIII. DESCRIPTION OF POTTERY VESSELS, ETC., FROM PALACE STORE-ROOM 44. (M.B.ii).

No.

1. Cat. No. 139. Jug, drab ware, wh.m.; roughened surface; burnt. 44.1.
2. Cat. No. 140. Jug, drab ware, gritty, wh.m.; wet-sm. 44.2.
3. Cat. No. 142. Jug, drab ware, few coarse grits, wh.m.; wet-sm.;
trefoil shaped mouth. 44.4.
4. Cat. No. 143. Jug, brick ware, gritty, wh.m.; grey slip. 44.5.
5. Cat. No. 163. Bronze dagger. 44.25.
6. Cat. No. 162. Bronze dagger. 44.24.
7. Cat. No. 141. Bowl, yellowish drab ware, some grit, wh.m.; wet-sm.
44.3.
8. Cat. No. 146. Bowl, lt. brick ware, wh.m.; wet-sm.; now partly
roughened. 44.8.
9. Cat. No. 145. Small vase, stone; badly cracked; burnt. 44.7.
10. Cat. No. 144. Jug, drab ware, coarse grits, wh.m.; wet-sm.; burnt.
44.6.
11. Cat. No. 147. Large vase, drab ware, gritty, wh.m.; wet-sm.; red
dec. 44.9.
12. Cat. No. 152. Jug, drab ware, gritty, wh.m.; wet-sm. 44.14.
13. Cat. No. 153. Amphora, grey ware, wh.m.; ext. light red. 44.15.
14. Cat. No. 154. Jug, greyish brick ware, wh.m.; cream slip. 44.16.

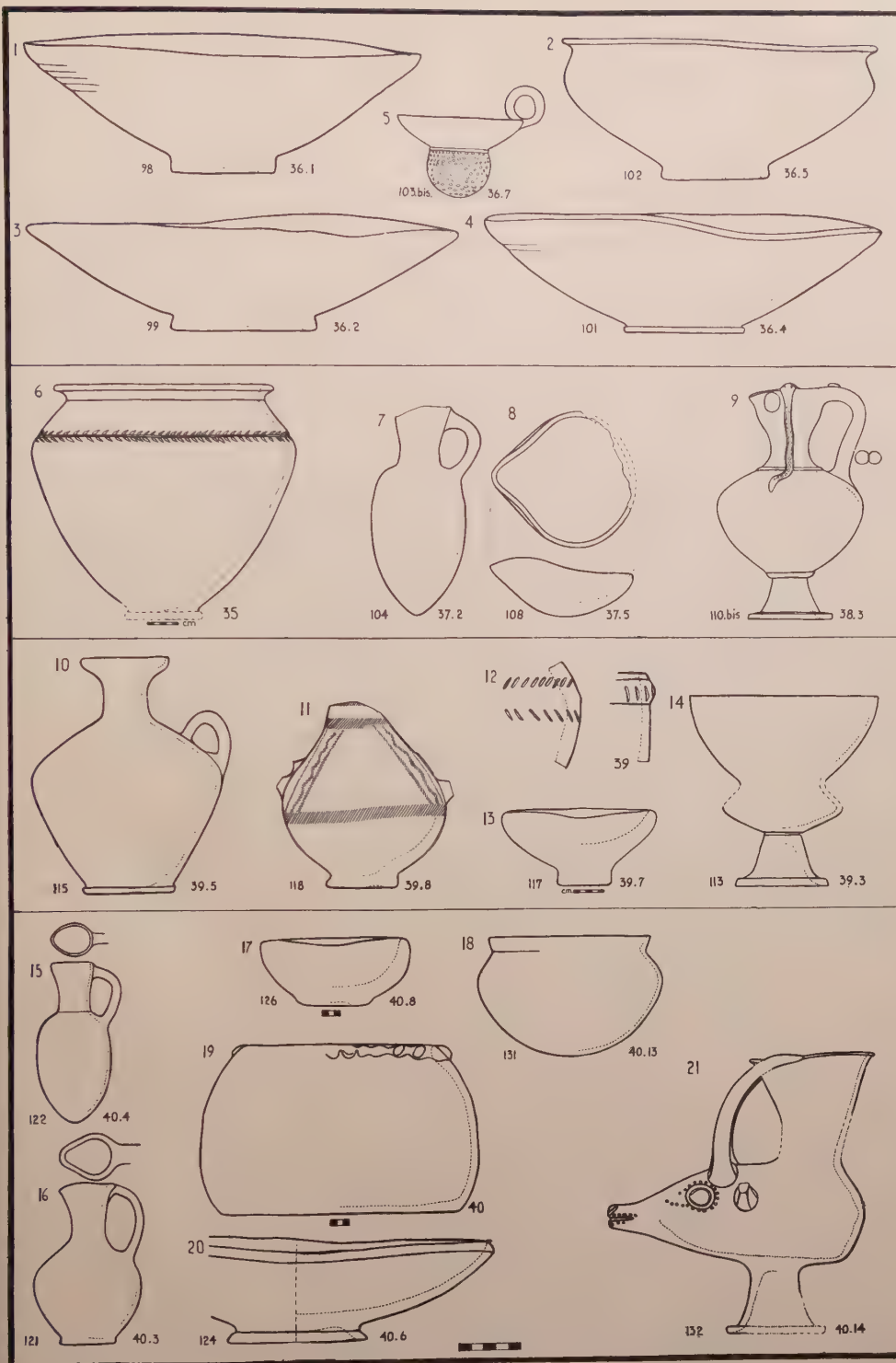


J.33. POTTERY VESSELS AND BRONZE DAGGERS FROM PALACE STORE ROOM 44 [LAYERS b, c.]

JERICHO, 1933.

PLATE XXII. DESCRIPTION OF POTTERY VESSELS FROM PALACE STORE-ROOMS 35-40. (M.B.ii. No.11, L.B.i).

No.		
1.	Cat. No. 98. Dish, drab ware, wh.m.; wet-sm.	36.1.
2.	Cat. No. 102. Bowl, drab ware, few grits; burnt.	36.5.
3.	Cat. No. 99. Dish, drab ware, fine grit, wh.m.; red slip burnished.	horiz. 36.2.
4.	Cat. No. 101. Dish, drab ware, few grits, wh.m.; rim burnt.	36.4.
5.	Cat. No. 103 bis. Strainer, fine ware, wet-sm.	36.7.
6.	Cat. No. 035. Large bowl, fragmentary; incised ornament on shoulder.	35.
7.	Cat. No. 104. Jug, grey ware, gritty.	37.2.
8.	Cat. No. 108. Lamp, reddish ware, wheel marks on base.	37.5.
9.	110 bis. Jug, pink ware, fine, wh.m.; wet-sm.; eyes below rim.	38.3.
10.	Cat. No. 115. Jug, drab ware, wh.m.; wet-sm.; very burnt.	39.5.
11.	Cat. No. 118. Jug, pink ware, flinty grits, wh.m.; red dec.	39.8.
12.	Cat. No. 039. Fragments; indented decoration.	39.
13.	Cat. No. 117. Grinding bowl, stone; burnt.	39.7.
14.	Cat. No. 113. Goblet, lt. brick ware, wh.m.; ? cream slip.	39.3.
15.	Cat. No. 122. Jug, lt. brick ware, wh.m.; lt. slip.	40.4.
16.	Cat. No. 121. Jug, yellowish drab ware, gritty, wh.m.; wet-sm.; burnt.	40.3.
17.	Cat. No. 126. Grinding bowl, stone.	40.8.
18.	Cat. No. 131. Bowl, drab ware, very gritty, wh.m.; roughened surface.	40.13.
19.	Cat. No. 040. Bowl, fragmentary thumb-indented pattern on rim.	40.
20.	Cat. No. 124. Dish, brick ware, some grit, wh.m.; wet-sm.; burnt black.	40.6.
21.	Cat. No. 132. Rhyton, pink ware; white slip.	40.14.



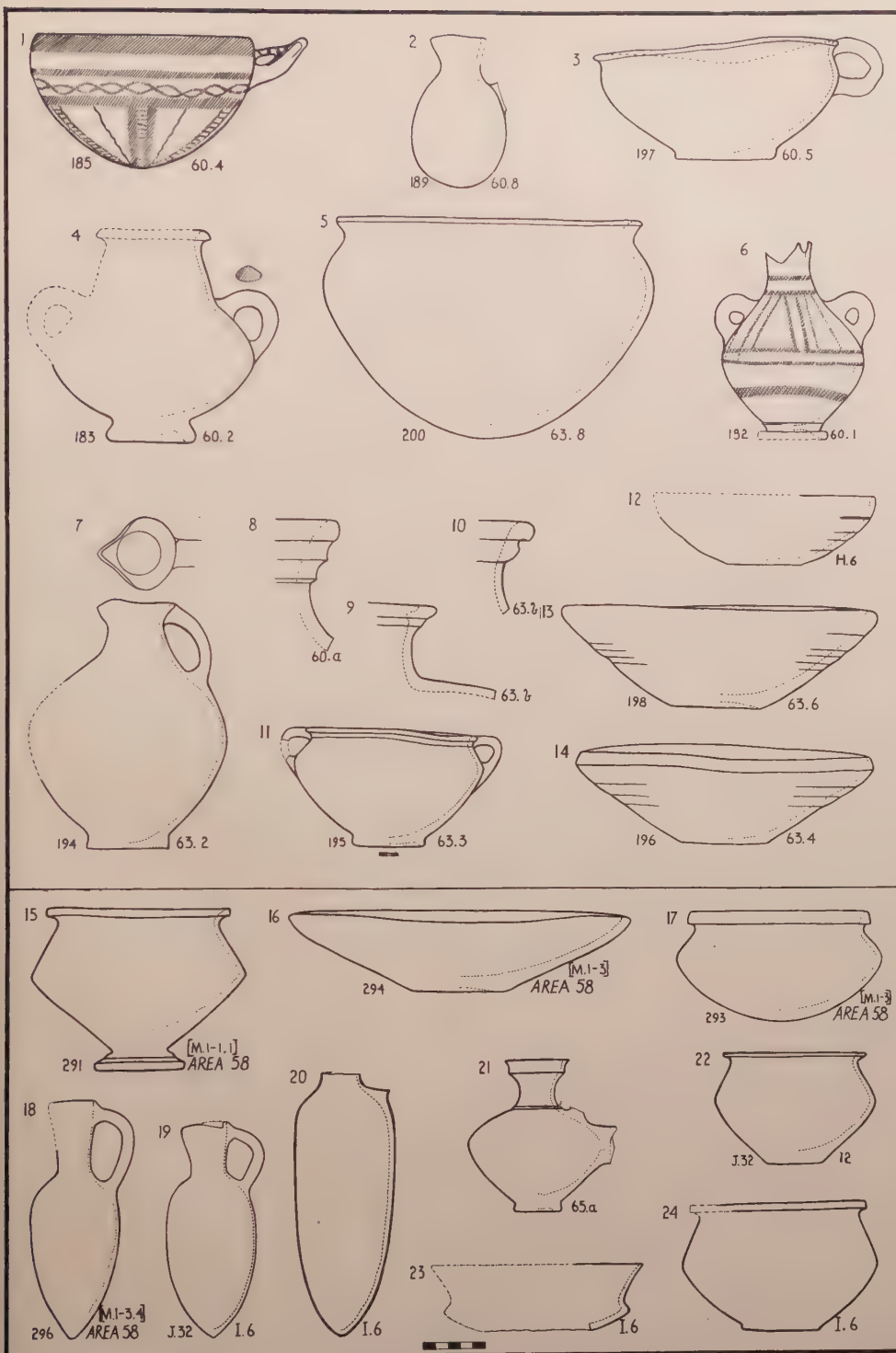
J.33. POTTERY VESSELS FROM PALACE STORE ROOMS 35-40. [NO. 11 FROM LAYER a.]

JERICHO, 1933.

PLATE XXIV. DESCRIPTION OF POTTERY VESSELS FROM
PALACE AREA 60 (MOSTLY L.B.i) AND ADJACENT AREAS.
(M.B.ii-L.B.i).

No.

1. Cat. No. 185. Drab ware, some fine grit; Cypriote painted ware. 60.4.
2. Cat. No. 189. Coarse brown ware, no grit; handle missing. 60.8.
3. Cat. No. 197. Drab ware, some flinty grit; coarsely made by hand.
should read 63.5.
4. Cat. No. 183. Drab ware, fine grit; red slip horiz. burnished;
vestiges of painted dec. 60.2.
5. Cat. No. 200. Red ware, coarse grits. 63.8.
6. Cat. No. 182. Drab ware; purple and yellow dec. 60.1.
7. Cat. No. 194. Drab ware, wh.m. 63.2.
8. Fragment of large store-jar, grey gritty ware. 60a.
- 9 and 10. Fragments of large store-jars, grey gritty ware. 60b.
11. Cat. No. 195. Drab ware, some grit; fragmentary. 63.3.
12. Fragments of bowl. H.6.
13. Cat. No. 198. Drab ware, wh.m.; black burning on base. 63.6.
14. Cat. No. 196. Red ware, some grits. 63.4.
15. Cat. No. 291. Red ware, gritty; white slip. (M.I.1-1) Area 58.
16. Cat. No. 294. Reddish ware, no grit; wet-sm. (M.I.3) Area 58.
17. Cat. No. 293. Drab ware, no grit. (M.I.3) Area 58.
18. Cat. No. 296. Drab ware, some fine grit. (M.I.3-4) Area 58.
19. J.32 (6). Drab ware, wh.m.; drab slip burnished. I.6.
21. Cat. No. 209. Drab ware; white slip. 65a.
22. J.32 (3). Brick ware with grit, wh.m.; wet-sm. (I.6) Room 12.



J.33. POTTERY VESSELS FROM AREA 60 (ROOMS 61-63), ROOMS 12 AND 65, AREAS 58 AND SQUARE 1.6.

JEICHHO, 1933-33

PLATE XXV. DESCRIPTION OF POTTERY VESSELS FROM
SQUARE 13; SPOT 74 (L.B.) AND ROOMS 68, 71, 72 (M.B.)

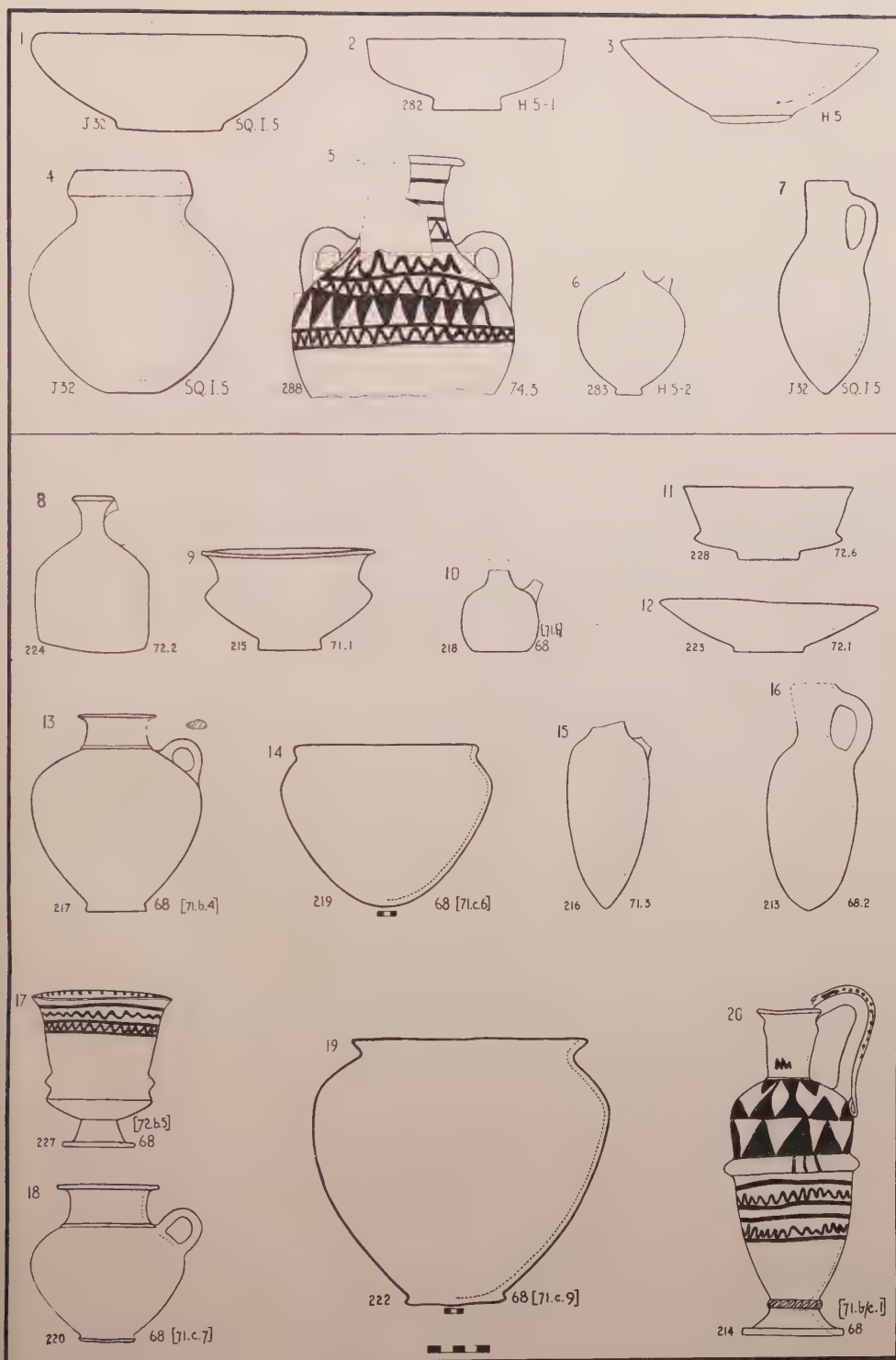
No.	Description	Material
1. J.32 (13) Drab ware; white; wet-sm.		50.1.5
2. Cat. No. 282. Drab ware; red slip; burnished.		50.1.5.1
3. Cat. No. 283. Drab ware; red slip; burnished.		50.1.5.1
4. Cat. No. 284. Drab ware; red slip; burnished.		50.1.5.1
5. Cat. No. 285. Drab ware; red slip; burnished.		50.1.5.1
6. Cat. No. 286. Drab ware; red slip; burnished.		50.1.5.1
7. J.32. Drab ware; red slip; burnished.		50.1.5.1
8. Cat. No. 287. Drab ware; red slip; burnished.		50.1.5.1
9. Cat. No. 215. Drab ware; red slip; burnished.		50.1.5.1
10. Cat. No. 218. Drab ware; black surface; wet-sm.		50.1.5.1
11. Cat. No. 288. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
12. Cat. No. 289. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
13. Cat. No. 290. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
14. Cat. No. 291. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
15. Cat. No. 292. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
16. Cat. No. 293. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
17. Cat. No. 294. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
18. Cat. No. 295. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
19. Cat. No. 296. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
20. Cat. No. 297. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
21. Cat. No. 298. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
22. Cat. No. 299. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
23. Cat. No. 300. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
24. Cat. No. 301. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
25. Cat. No. 302. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
26. Cat. No. 303. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
27. Cat. No. 304. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
28. Cat. No. 305. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
29. Cat. No. 306. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
30. Cat. No. 307. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
31. Cat. No. 308. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
32. Cat. No. 309. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
33. Cat. No. 310. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
34. Cat. No. 311. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
35. Cat. No. 312. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
36. Cat. No. 313. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
37. Cat. No. 314. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
38. Cat. No. 315. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
39. Cat. No. 316. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
40. Cat. No. 317. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
41. Cat. No. 318. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
42. Cat. No. 319. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
43. Cat. No. 320. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
44. Cat. No. 321. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
45. Cat. No. 322. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
46. Cat. No. 323. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
47. Cat. No. 324. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
48. Cat. No. 325. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
49. Cat. No. 326. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1
50. Cat. No. 327. Pink ware; wet-sm.; burnt black on bottom.		50.1.5.1

JERICHO, 1932-33.

PLATE XXV. DESCRIPTION OF POTTERY VESSELS FROM
SQUARE I.5; SPOT 74 (L.B.i) AND ROOMS 68, 71, 72 (M.B.ii).

No.

- | | | |
|-----|--|----------------|
| 1. | J.32 (13) Drab ware, wh.m.; wet-sm. | SQ.I.5. |
| 2. | Cat. No. 282. Drab ware; red slip horiz. burnished. | SQ. H.5.1. |
| 4. | J.32 (14) Drab ware, wh.m.; wet-sm. | SQ.I.5. |
| 5. | Cat. No. 288. Drab ware, some grit; wet-sm.; purple dec. | 74.3. |
| 6. | Cat. No. 283. Drab ware, fine grits; white slip. | H.5-2. |
| 7. | J.32. Drab ware; red slip horiz. burnished. | SQ.I.5. |
| 8. | Cat. No. 224. Grey ware; rough finish. | 72.2. |
| 9. | Cat. No. 215. Drab ware; red slip horiz. burnished | |
| | 71.1 should read 71.2. | |
| 10. | Cat. No. 218. Drab ware, black surface, wet-sm. | (71.b) 68. |
| 11. | Cat. No. 228. Pink ware; wet-sm.; burnt black on bottom. | 72.6. |
| 12. | Cat. No. 223. Drab ware, flinty grits, wh.m. | (72.b.1) 68. |
| 13. | Cat. No. 217. Drab ware; pink slip perished. | (71.b.4) 68. |
| 14. | Cat. No. 219. Coarse drab ware, some grit. | (71.c.6) 68. |
| 15. | Cat. No. 216. Pinkish ware; wet-sm. | 71.3. |
| 16. | Cat. No. 213. Drab ware, some grit; burnished. | 68.2. |
| 17. | Cat. No. 227. Fine ware, thin; red dec. | (72.b.5) 68. |
| 18. | Cat. No. 220. Drab ware, gritty; double handle on shoulder. | |
| | (71.c.7) 68. | |
| 19. | Cat. No. 222. Drab ware, rather gritty, wh.m.; wet-sm.; int. surface fired red; ext. yellow-red. | (71.c.9) 68. |
| 20. | Cat. No. 214. Drab ware; red slip burnished; painted dec. also modelled band round body. | (71.b/c.1) 68. |



J.32-33. POTTERY VESSELS FROM SQUARES H.5 AND I.5, AND FROM PALACE STORE ROOMS 68, 71, 72.

LEICHO, 1933.

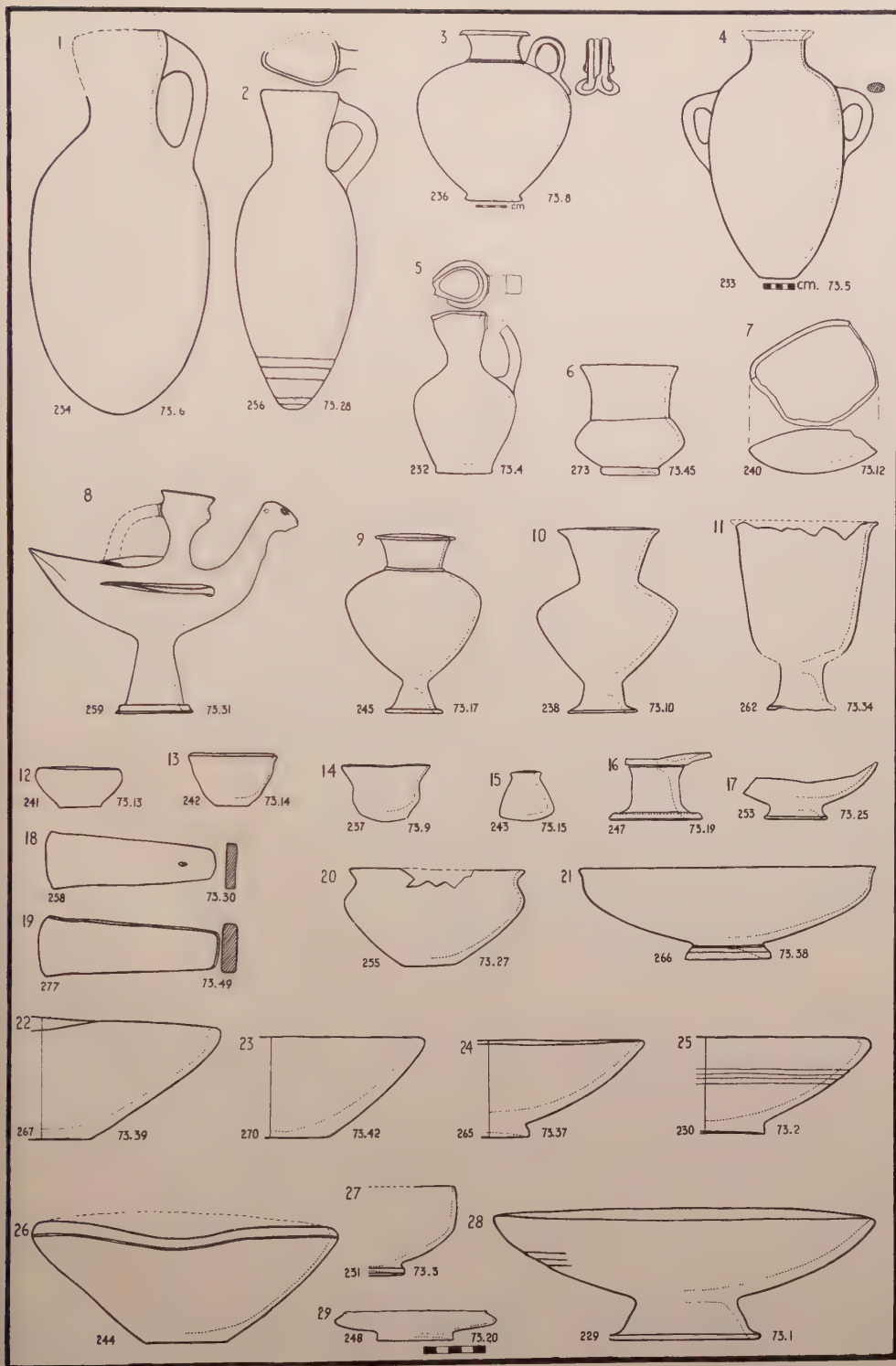
PLATE XXVI DESCRIPTION OF POTTERY VESSELS FROM PALACE STORE-ROOM 73 (MOSTLY M.B. 17).

No.		
1.	Cat. No. 234. Jug, wham, very burnt, roughened surface.	73.6.
2.	Cat. No. 235. Jug, drab ware, wham, wet-sm., burnt.	73.38.
3.	Cat. No. 236. Jug, drab ware, wham, wet-sm., burnt.	73.8.
4.	Cat. No. 233. Amphora, drab ware, gritty, wham, wet-sm.	73.5.
5.	Cat. No. 232. Jug, yellowish ware, wham, wet-sm.	73.4.
6.	Cat. No. 273. Vase, drab ware, wham, red slip burnished.	73.45.
7.	Cat. No. 240. Lamp, drab ware, gritty, wheel finished, wet-sm., burnt.	73.12.
8.	Cat. No. 259. Bird vase, drab ware, wham, wet-sm., broken.	73.31.
9.	Cat. No. 245. Goblet, drab ware, wham, wet-sm.	73.17.
10.	Cat. No. 238. Goblet, brickish drab ware, wham, wet-sm.	73.10.
11.	Cat. No. 262. Pedestal cup, brick ware, gritty, wham, red slip.	73.34.
12.	Cat. No. 241. Small cup, drab ware, wham, burnt.	73.13.
13.	Cat. No. 242. Small cup, grey ware, wham, burnt.	73.14.
14.	Cat. No. 227. Small cup, drab ware, gritty, wham, burnt.	73.15.
15.	Cat. No. 228. Small cup, drab ware, gritty, wham, burnt.	73.16.
16.	Cat. No. 247. Pedestal cup, drab ware, gritty, wham, burnt.	73.17.
17.	Cat. No. 229. Small cup, drab ware, gritty, wham, burnt.	73.18.
18.	Cat. No. 230. Small cup, drab ware, gritty, wham, burnt.	73.19.
19.	Cat. No. 231. Small cup, drab ware, gritty, wham, burnt.	73.20.
20.	Cat. No. 232. Small cup, drab ware, gritty, wham, burnt.	73.21.
21.	Cat. No. 233. Small cup, drab ware, gritty, wham, burnt.	73.22.
22.	Cat. No. 234. Small cup, drab ware, gritty, wham, burnt.	73.23.
23.	Cat. No. 235. Small cup, drab ware, gritty, wham, burnt.	73.24.
24.	Cat. No. 236. Small cup, drab ware, gritty, wham, burnt.	73.25.
25.	Cat. No. 237. Small cup, drab ware, gritty, wham, burnt.	73.26.
26.	Cat. No. 238. Small cup, drab ware, gritty, wham, burnt.	73.27.
27.	Cat. No. 239. Small cup, drab ware, gritty, wham, burnt.	73.28.
28.	Cat. No. 240. Small cup, drab ware, gritty, wham, burnt.	73.29.
29.	Cat. No. 241. Small cup, drab ware, gritty, wham, burnt.	73.30.
30.	Cat. No. 242. Small cup, drab ware, gritty, wham, burnt.	73.31.
31.	Cat. No. 243. Small cup, drab ware, gritty, wham, burnt.	73.32.
32.	Cat. No. 244. Small cup, drab ware, gritty, wham, burnt.	73.33.
33.	Cat. No. 245. Small cup, drab ware, gritty, wham, burnt.	73.34.
34.	Cat. No. 246. Small cup, drab ware, gritty, wham, burnt.	73.35.
35.	Cat. No. 247. Small cup, drab ware, gritty, wham, burnt.	73.36.
36.	Cat. No. 248. Small cup, drab ware, gritty, wham, burnt.	73.37.
37.	Cat. No. 249. Small cup, drab ware, gritty, wham, burnt.	73.38.
38.	Cat. No. 250. Small cup, drab ware, gritty, wham, burnt.	73.39.
39.	Cat. No. 251. Small cup, drab ware, gritty, wham, burnt.	73.40.
40.	Cat. No. 252. Small cup, drab ware, gritty, wham, burnt.	73.41.
41.	Cat. No. 253. Small cup, drab ware, gritty, wham, burnt.	73.42.
42.	Cat. No. 254. Small cup, drab ware, gritty, wham, burnt.	73.43.
43.	Cat. No. 255. Small cup, drab ware, gritty, wham, burnt.	73.44.
44.	Cat. No. 256. Small cup, drab ware, gritty, wham, burnt.	73.45.
45.	Cat. No. 257. Small cup, drab ware, gritty, wham, burnt.	73.46.
46.	Cat. No. 258. Small cup, drab ware, gritty, wham, burnt.	73.47.
47.	Cat. No. 259. Small cup, drab ware, gritty, wham, burnt.	73.48.
48.	Cat. No. 260. Small cup, drab ware, gritty, wham, burnt.	73.49.
49.	Cat. No. 261. Small cup, drab ware, gritty, wham, burnt.	73.50.
50.	Cat. No. 262. Small cup, drab ware, gritty, wham, burnt.	73.51.
51.	Cat. No. 263. Small cup, drab ware, gritty, wham, burnt.	73.52.
52.	Cat. No. 264. Small cup, drab ware, gritty, wham, burnt.	73.53.
53.	Cat. No. 265. Small cup, drab ware, gritty, wham, burnt.	73.54.
54.	Cat. No. 266. Small cup, drab ware, gritty, wham, burnt.	73.55.
55.	Cat. No. 267. Small cup, drab ware, gritty, wham, burnt.	73.56.
56.	Cat. No. 268. Small cup, drab ware, gritty, wham, burnt.	73.57.
57.	Cat. No. 269. Small cup, drab ware, gritty, wham, burnt.	73.58.
58.	Cat. No. 270. Small cup, drab ware, gritty, wham, burnt.	73.59.
59.	Cat. No. 271. Small cup, drab ware, gritty, wham, burnt.	73.60.
60.	Cat. No. 272. Small cup, drab ware, gritty, wham, burnt.	73.61.
61.	Cat. No. 273. Small cup, drab ware, gritty, wham, burnt.	73.62.
62.	Cat. No. 274. Small cup, drab ware, gritty, wham, burnt.	73.63.
63.	Cat. No. 275. Small cup, drab ware, gritty, wham, burnt.	73.64.
64.	Cat. No. 276. Small cup, drab ware, gritty, wham, burnt.	73.65.
65.	Cat. No. 277. Small cup, drab ware, gritty, wham, burnt.	73.66.
66.	Cat. No. 278. Small cup, drab ware, gritty, wham, burnt.	73.67.
67.	Cat. No. 279. Small cup, drab ware, gritty, wham, burnt.	73.68.
68.	Cat. No. 280. Small cup, drab ware, gritty, wham, burnt.	73.69.
69.	Cat. No. 281. Small cup, drab ware, gritty, wham, burnt.	73.70.
70.	Cat. No. 282. Small cup, drab ware, gritty, wham, burnt.	73.71.
71.	Cat. No. 283. Small cup, drab ware, gritty, wham, burnt.	73.72.
72.	Cat. No. 284. Small cup, drab ware, gritty, wham, burnt.	73.73.
73.	Cat. No. 285. Small cup, drab ware, gritty, wham, burnt.	73.74.
74.	Cat. No. 286. Small cup, drab ware, gritty, wham, burnt.	73.75.
75.	Cat. No. 287. Small cup, drab ware, gritty, wham, burnt.	73.76.
76.	Cat. No. 288. Small cup, drab ware, gritty, wham, burnt.	73.77.
77.	Cat. No. 289. Small cup, drab ware, gritty, wham, burnt.	73.78.
78.	Cat. No. 290. Small cup, drab ware, gritty, wham, burnt.	73.79.
79.	Cat. No. 291. Small cup, drab ware, gritty, wham, burnt.	73.80.
80.	Cat. No. 292. Small cup, drab ware, gritty, wham, burnt.	73.81.
81.	Cat. No. 293. Small cup, drab ware, gritty, wham, burnt.	73.82.
82.	Cat. No. 294. Small cup, drab ware, gritty, wham, burnt.	73.83.
83.	Cat. No. 295. Small cup, drab ware, gritty, wham, burnt.	73.84.
84.	Cat. No. 296. Small cup, drab ware, gritty, wham, burnt.	73.85.
85.	Cat. No. 297. Small cup, drab ware, gritty, wham, burnt.	73.86.
86.	Cat. No. 298. Small cup, drab ware, gritty, wham, burnt.	73.87.
87.	Cat. No. 299. Small cup, drab ware, gritty, wham, burnt.	73.88.
88.	Cat. No. 300. Small cup, drab ware, gritty, wham, burnt.	73.89.
89.	Cat. No. 301. Small cup, drab ware, gritty, wham, burnt.	73.90.
90.	Cat. No. 302. Small cup, drab ware, gritty, wham, burnt.	73.91.
91.	Cat. No. 303. Small cup, drab ware, gritty, wham, burnt.	73.92.
92.	Cat. No. 304. Small cup, drab ware, gritty, wham, burnt.	73.93.
93.	Cat. No. 305. Small cup, drab ware, gritty, wham, burnt.	73.94.
94.	Cat. No. 306. Small cup, drab ware, gritty, wham, burnt.	73.95.
95.	Cat. No. 307. Small cup, drab ware, gritty, wham, burnt.	73.96.
96.	Cat. No. 308. Small cup, drab ware, gritty, wham, burnt.	73.97.
97.	Cat. No. 309. Small cup, drab ware, gritty, wham, burnt.	73.98.
98.	Cat. No. 310. Small cup, drab ware, gritty, wham, burnt.	73.99.
99.	Cat. No. 311. Small cup, drab ware, gritty, wham, burnt.	74.00.
100.	Cat. No. 312. Small cup, drab ware, gritty, wham, burnt.	74.01.

JERICHO, 1933.

PLATE XXVI. DESCRIPTION OF POTTERY VESSELS FROM PALACE STORE-ROOM '73 (MOSTLY M.B.ii).

No.			
1.	Cat. No. 234.	Jug, wh.m.; very burnt; roughened surface.	73.6.
2.	Cat. No. 256.	Jug, drab ware, wh.m.; wet-sm.; burnt.	73.28.
3.	Cat. No. 236.	Jug, drab ware, wh.m.; wet-sm.; burnt.	73.8.
4.	Cat. No. 233.	Amphora, drab ware, gritty, wh.m.; wet-sm.	73.5.
5.	Cat. No. 232.	Jug, yellowish ware, wh.m.; wet-sm.	73.4.
6.	Cat. No. 273.	Vase, drab ware, wh.m.; red slip burnished.	73.45.
7.	Cat. No. 240.	Lamp, drab ware, gritty, wheel finished; wet-sm.; burnt.	73.12.
8.	Cat. No. 259.	Bird vase, drab ware, wh.m.; wet-sm.; broken.	73.31.
9.	Cat. No. 245.	Goblet, drab ware, wh.m.; wet-sm.	73.17.
10.	Cat. No. 238.	Goblet, brickish drab ware, wh.m.; wet-sm.	73.10.
11.	Cat. No. 262.	Pedestal cup, brick ware, gritty, wh.m.; red slip. 73.34.	
12.	Cat. No. 241.	Small cup, drab ware, wh.m.; burnt.	73.13.
13.	Cat. No. 242.	Small cup, grey ware, wh.m.; burnt.	73.14.
14.	Cat. No. 237.	Small cup, drab ware, gritty, wh.m.; very burnt. 73.9.	
15.	Cat. No. 243.	Small vase, grey ware; wet-sm.	73.15.
16.	Cat. No. 247.	Pedestal base of vessel, drab ware, wh.m.; wet-sm. 73.19.	
17.	Cat. No. 253.	Base of bowl, drab ware, wh.m.; slip doubtful.	73.25.
18.	Cat. No. 258.	Bronze hatchet.	73.30.
19.	Cat. No. 277.	Bronze axe head.	73.49.
20.	Cat. No. 255.	Bowl, drabish brick ware, wh.m.; wet-sm.	73.27.
21.	Cat. No. 266.	Bowl, lt. brick ware, wh.m.; wet-sm.	73.38.
22.	Cat. No. 267.	Bowl, brick ware, gritty, coarse, wh.m.; wet-sm.	73.39.
23.	Cat. No. 270.	Bowl, drab ware, coarse grits, wh.m.; wet-sm.	73.42.
24.	Cat. No. 265.	Dish, lt. brick ware, wh.m.; wet-sm.	73.37.
25.	Cat. No. 230.	Dish, lt. brick ware, wh.m.; wet-sm.	73.2.
26.	Cat. No. 244.	Dish, lt. brick ware, wh.m.; wet-sm.	73.16.
27.	Cat. No. 231.	Bowl, drab ware, fine grit, wh.m.; wet-sm.; burnt. 73.3.	
28.	Cat. No. 229.	Dish, lt. brick ware, wh.m.; wet-sm.; broken.	73.1.
29.	Cat. No. 248.	Fragment of dish, drab ware, fine, wh.m.; wet-sm. 73.20.	

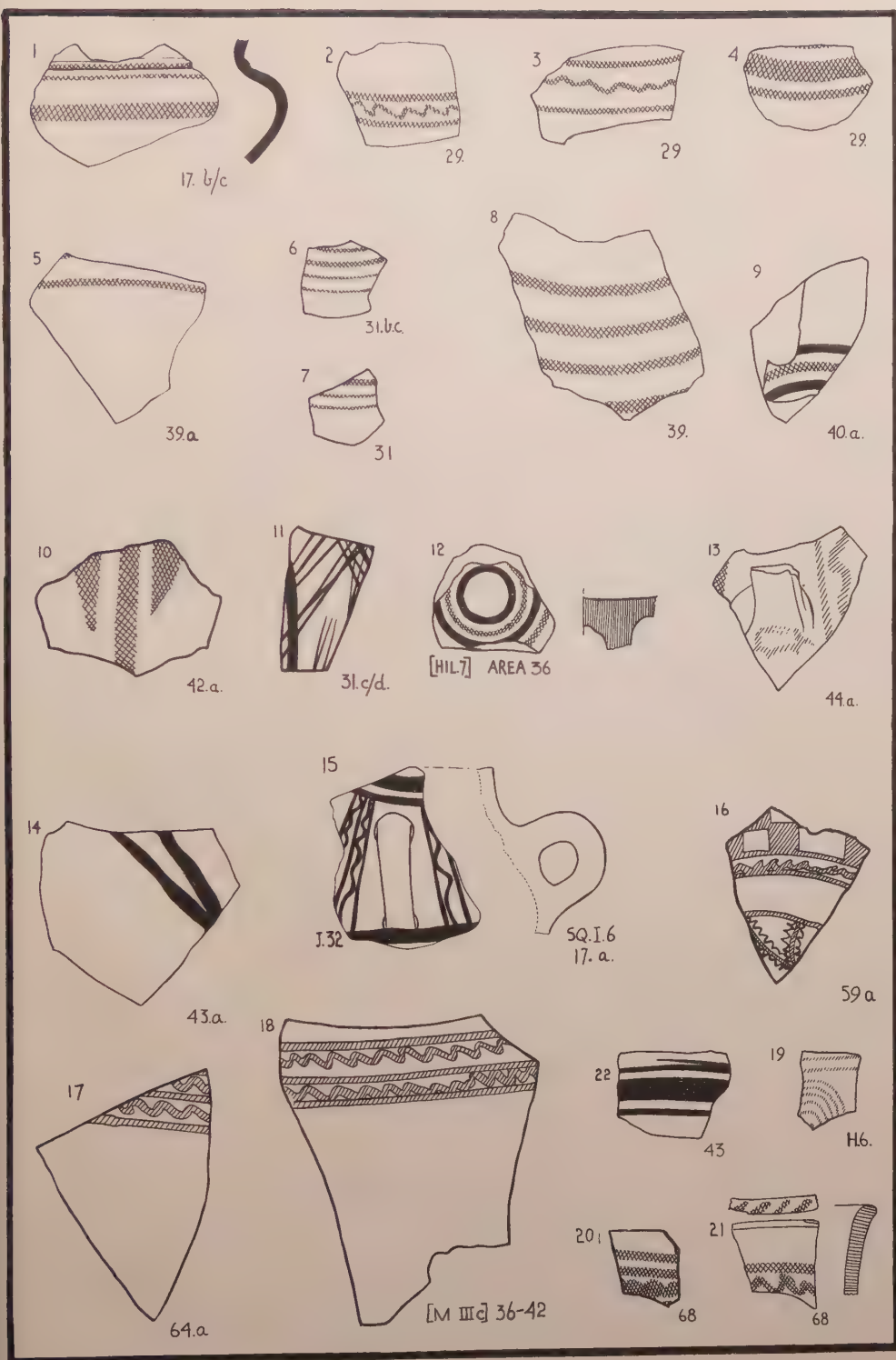


J.33. GROUP OF POTTERY VESSELS FROM PALACE STORE ROOM 73. [M II 3]. NOS. 18, 19, OF BRONZE.

JERICHO, 1933.

PLATE XXVII. DESCRIPTION OF PAINTED FRAGMENTS FROM ABOVE THE PALACE STORE-ROOMS (M.B.ii—L.B.i).

- | | | |
|-----|---|-----------|
| No. | | |
| 1. | Lt. brown ware, mixed grits, wh.m.; cream slip burnished; red dec. | 17.b/c. |
| 2. | Red ware, fine grits, wh.m.; reddish slip burnished; purple dec. | 29. |
| 3. | Red ware, fine grits, wh.m.; reddish slip burnished; purple dec. | 29. |
| 4. | Drab ware, few grits, wh.m.; cream slip; red dec. | 29. |
| 5. | Drab ware, wh.m.; vert. shaved; cream slip burnished; red dec. | 39.a. |
| 6. | Drab ware, few grits, wh.m.; white slip; red dec. | 31.b/c. |
| 7. | Drab ware, few grits, wh.m.; white slip; red dec. | 31. |
| 8. | Brown ware, gritty, coarse, wh.m.; wet-sm.; reddish dec. | 39. |
| 9. | Red ware, wh.m.; wet-sm.; black and red dec. | 40.a. |
| 10. | Brown ware, gritty, coarse, wh.m.; yellow slip; brown dec. | 42.a. |
| 11. | Red ware, wh.m.; wet-sm.; dark red dec. | 31.c/d. |
| 12. | Red ware, wh.m.; wet-sm.; black and red dec. (Hil. 7.) | Area. 36. |
| 13. | Brown ware, red core, gritty, wh.m.; wet-sm.; light red dec. | 44.a. |
| 14. | Brown ware, mixed grits, wh.m.; cream slip; black dec. | 43.a. |
| 15. | J.32. Drab ware, fine grit, wh.m.; wet-sm. [Sq.I.6.) | 17.a. |
| 16. | Buff ware, wh.m.; reddish slip; dark red dec. | 59.a. |
| 17. | Red ware, gritty, wh.m.; cream slip vert. burnished; red dec. | 64.a. |
| 18. | Red ware, wh.m.; cream slip vert. burnished; red dec.
(M.III.c.) | 36-42. |
| 19. | Lt. brown ware, wh.m.; yellowish slip burnished; lt. red dec. | H.6. |
| 21. | Buff ware, few grits, wh.m.; cream slip int. and ext.; dark red dec. | 68. |
| 22. | Grey ware, medium grits, wh.m.; white slip burnished, burnt; black dec. | 43. |



J.38. PAINTED POTTERY FRAGMENTS FOUND ABOVE OR IN THE UPPER LAYERS OF THE PALACE STORE ROOMS



ERICHO, 1933.

1. Lt. brown ware, large grits, white; wet-sun; red dec. (Hilani). 70.
2. Brown ware, white; yellowish slip burnished; red dec. 70.
3. Dark ware, grey core, white; wet-sun; black and cream dec. 70.
4. Dark ware, gritty, hand-m.; wh. finished; pink slip; red dec. 70.
5. Brown ware, few grits, white; wet-sun; dark red dec. 70.
6. Brown ware, few grits, white; yellow slip; vert. burnished. 70.
7. Brown ware, white; brown slip burnished. 70.
8. Brown ware, few large grits, white; yellow slip; orn. 70.

9. Brown ware, few large grits, white; yellow slip; orn. 70.

10. Brown ware, few large grits, white; yellow slip; orn. 70.

11. Brown ware, few large grits, white; yellow slip; orn. 70.

12. Brown ware, few large grits, white; yellow slip; orn. 70.

13. Brown ware, few large grits, white; yellow slip; orn. 70.

14. Brown ware, few large grits, white; yellow slip; orn. 70.

15. Brown ware, few large grits, white; yellow slip; orn. 70.

16. Brown ware, few large grits, white; yellow slip; orn. 70.

17. Brown ware, few large grits, white; yellow slip; orn. 70.

18. Brown ware, few large grits, white; yellow slip; orn. 70.

19. Brown ware, few large grits, white; yellow slip; orn. 70.

20. Brown ware, few large grits, white; yellow slip; orn. 70.

JERICHO, 1933.

PLATE XXVIII. DESCRIPTION OF PAINTED FRAGMENTS FROM PALACE AREAS 70 AND 80 (M.B.ii—L.B.i)

No.

1. Lt. brown ware, large grits, wh.m.; wet-sm.; red dec. (Hilani). 70.
2. Brown ware, wh.m.; yellowish slip burnished; red dec. 70.a.
3. Drab ware, grey core, wh.m.; wet-sm.; black and cream dec. 70.
4. Drab ware, gritty, hand.m.; wh. finished; pink slip; red. dec. 71.
5. Brown ware, few grits, wh.m.; wet-sm.; dark red dec. 70.
6. Brown ware, few grits, wh.m.; yellow slip vert. burnished; purple dec. 73.b.
7. Fine brown ware, w.h.m.; brown slip burnished. 73.
8. Drab ware, few large grits, wh.m.; yellow slip; orange and brown dec. 72.
9. Brown ware, few grits, wh.m.; yellow slip burnished; red dec. 76.
10. Lt. red ware, wh.m.; wet-sm.; lt. red dec. 73.a.
11. Lt. brown ware, gritty, wh.m.; yellow slip burnished; red dec. 76.
13. Drab ware, fine grits, wh.m.; cream slip; red dec. 76.
14. Lt. red ware, few grits, wh.m.; buff slip; brown dec. 76.
15. Red ware, few grits, wh.m.; wet-sm.; red dec. 80.
16. Buff ware; dark and lt. red dec. 80.
17. Brown ware, few grits, wh.m.; white slip; red dec. 80.
18. Lt. red ware, few grits, wh.m.; white slip; red dec. 80.
19. Lt. red ware, few grits wh.m.; white slip; red dec.

Tower Room. A(-200).



J.33 PAINTED POTTERY FRAGMENTS MOSTLY FROM OR ABOVE PALACE AREAS 70, 80.

JERICHO, 1933.

FROM AREA 58 ETC., AND AREA 60 (M.B. AND L.B.).

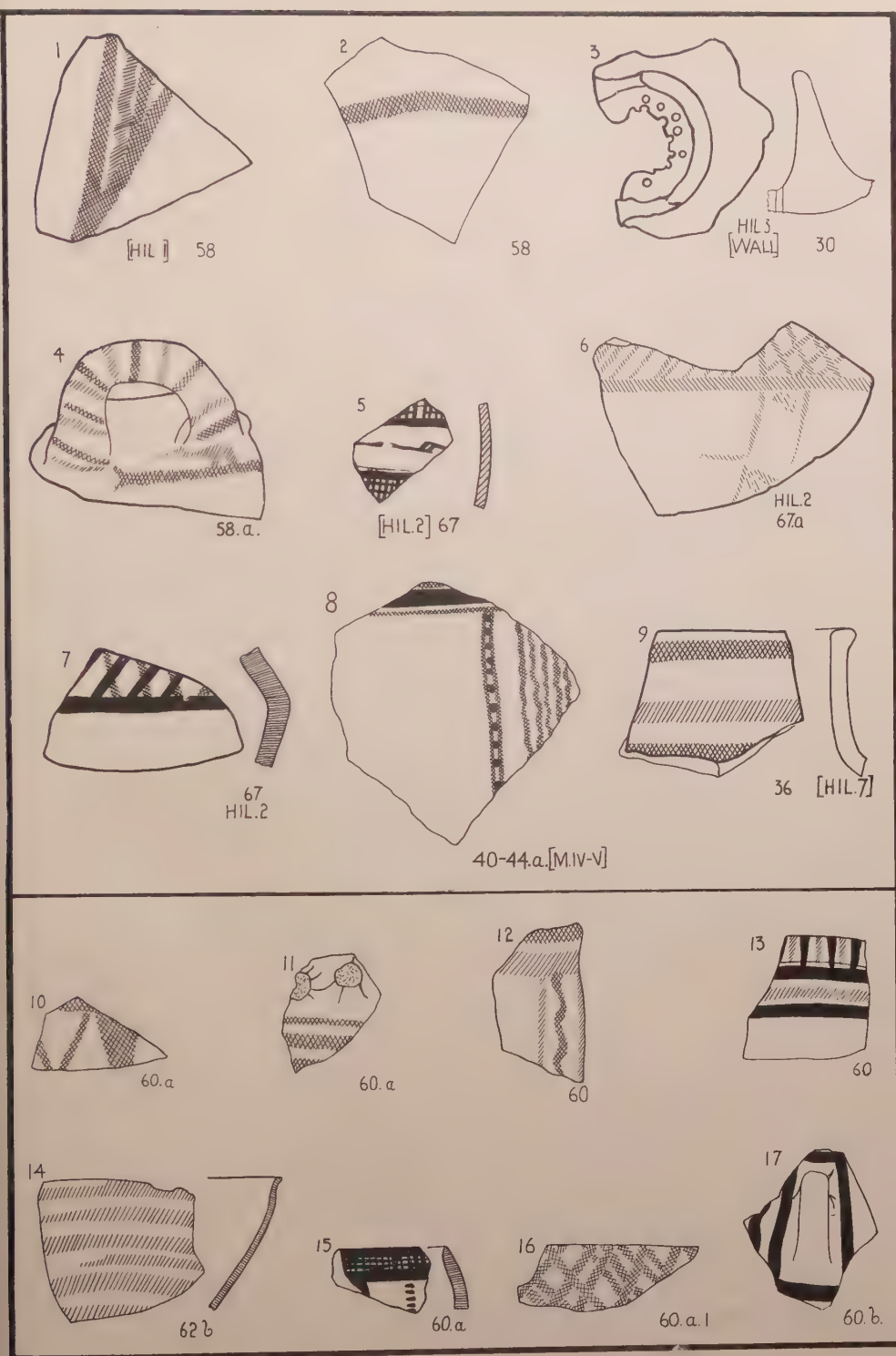
1. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
2. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
3. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
4. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
5. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
6. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
7. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
8. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
9. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
10. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
11. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
12. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
13. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
14. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
15. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
16. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)
17. Red ware, some grits, wh.m.; wet-sm.; brown dec. (M.B. 58)

JERICHO, 1933.

PLATE XXIX. DESCRIPTION OF PAINTED FRAGMENTS FROM AREA 58 ETC., AND AREA 60 (M.B.ii AND L.B.i).

No.

1. Drab ware, wh.m.; wet-sm.; brown and red dec. (Hil. 1) Area 58.
2. Drab ware, some grit, wh.m.; wet-sm.; brown dec. Area 58.
3. Buff ware with grits, crude; wet-sm. (Hil. 3. Wall) Area 30.
4. Red ware, few grits, wh.m.; cream slip; purple and red dec.
Area 58.a.
5. Drab ware, wh.m.; white slip int. and ext.; burnished ext.; brown dec.
(Hil. 2) Area 67.
6. Red ware, few grits, wh.m.; cream slip; light red dec.
(Hil. 2) Area 67.a.
7. Red ware, wh.m.; wet-sm.; black and dark red dec. (Hil. 2) Area 67.
8. Drab ware, gritty, coarse, wh.m.; yellow slip burnished; black and
dark red dec. Area 40-44a. (M.IV.-V.).
9. Drab ware, wh.m.; wet-sm.; purple and red dec. (Hil. 7) Area 36.
10. Red ware, fine grits, wh.m.; brown dec. Area 60.a.
11. Red ware, mixed grits, wh.m.; pink slip burnished; red dec.
Area 60.a.
12. Red ware, wh.m.; cream slip; purple and red dec. Area 60.
13. Drab ware, wh.m.; wet-sm.; brown and orange dec. Area 60.
14. Buff ware, fine, wh.m.; wet-sm.; brown dec. Area 62.b.
15. Brown ware, few grits, wh.m.; white slip int. and ext.; burnished
ext.; brown dec. Area 60.a.
16. Drab ware, gritty, wh.m.; wet-sm.; brown dec. Area 60.a.1.
17. Brown ware, wh.m.; burnt; black dec. Area 60.b.



J.33. PAINTED POTTERY FRAGMENTS MOSTLY FROM OR ABOVE STORE-ROOM AREAS 58, 67 AND AREA 60.

JERICHO, 1933.

TABLE I. DESCRIPTION OF PAINTED FRAGMENTS FROM
THE JERICHO SITES IN SQUARES 112 AND 113. (CONTINUED)

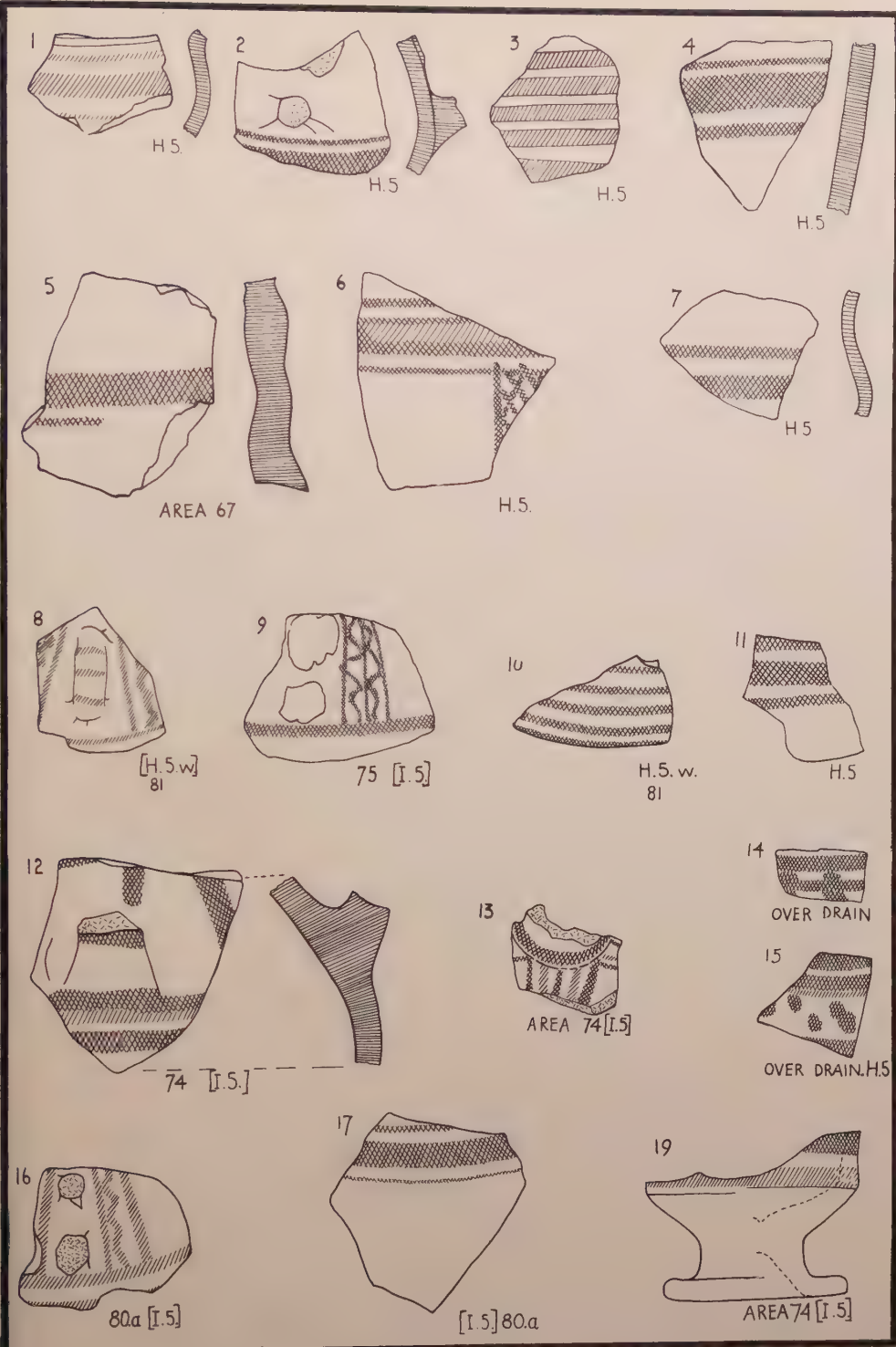
H.5.	1. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	2. Drab ware, mixed grits, wh.m.; wet-slip; dark red dec.
H.5.	3. Drab ware, large grits; cream slip; bright red dec.
H.5.	4. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	5. Drab ware, mixed grits, wh.m.; cream slip; black and red dec.
Area 67	6. Drab ware, mixed grits, wh.m.; wet-slip; light brown dec.
H.5.	7. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	8. Drab ware, wh.m.; int. rough; ext. wet-slip; red dec. (H.5.W.) 81
H.5.	9. Drab ware, wh.m.; int. rough; ext. wet-slip; light red dec. (H.5.W.) 73
H.5.	10. Fine drab ware, wh.m.; white slip ext.; dark red dec. (H.5.W.) 81
H.5.	11. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	12. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	13. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	14. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	15. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	16. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	17. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	18. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	19. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.
H.5.	20. Drab ware, mixed grits, wh.m.; wet-slip; light red dec.

JERICHO, 1933.

PLATE XXX. DESCRIPTION OF PAINTED FRAGMENTS FROM UPPER LEVELS OF SQUARES H.5 AND I.5. (MOSTLY L.B.i).

No.

1. Drab ware, mixed grits, wh.m.; wet-sm.; light red dec. H.5.
2. Drab ware, mixed grits, wh.m.; wet-sm.; dark red dec. H.5.
3. Drab ware, large grits; cream slip; bright red dec. H.5.
4. Drab ware, mixed grits, wh.m.; wet-sm.; purple dec. H.5.
5. Drab ware, mixed grits, wh.m.; cream slip; black and red dec. Area 67.
6. Brown ware, gritty, wh.m.; yellow slip; dark and light brown dec. H.5.
7. Drab ware, wh.m.; wet-sm.; brown dec. H.5.
8. Drab ware, wh.m.; int. rough; ext. wet-sm.; red dec. (H.5.W.) 81.
9. Buff ware, wh.m.; int. rough; ext. wet-sm.; purple dec. (I.5.) 75.
10. Fine drab ware, wh.m.; white slip ext.; dark red dec. (H.5.W.) 81.
11. Brown ware, mixed grits, wh.m.; wet-sm.; red dec. H.5.
12. Dark brown ware, wh.m.; wet-sm.; black and brown dec. (I.5.) 74.
13. Drab ware, wh.m.; cream slip; black and red dec. (I.5.) 74.
14. Buff ware, gritty, wh.m.; white slip; red dec. Over drain (H.5).
15. Buff ware, gritty, wh.m.; white slip; red dec. Over drain (H.5.-I.5).
16. Drab ware, wh.m.; int. rough; ext. wet-sm.; red dec. (I.5.) 80.a.
17. Drab ware, wh.m.; yellow slip burnished; purple dec. (I.5.) 80.a.
18. Drab ware, wh.m.; wet-sm.; brown and red dec. (I.5.) 74.



J.33. PAINTED POTTERY FRAGMENTS MOSTLY FROM UPPER LEVELS IN AREAS H.5 AND I.5.

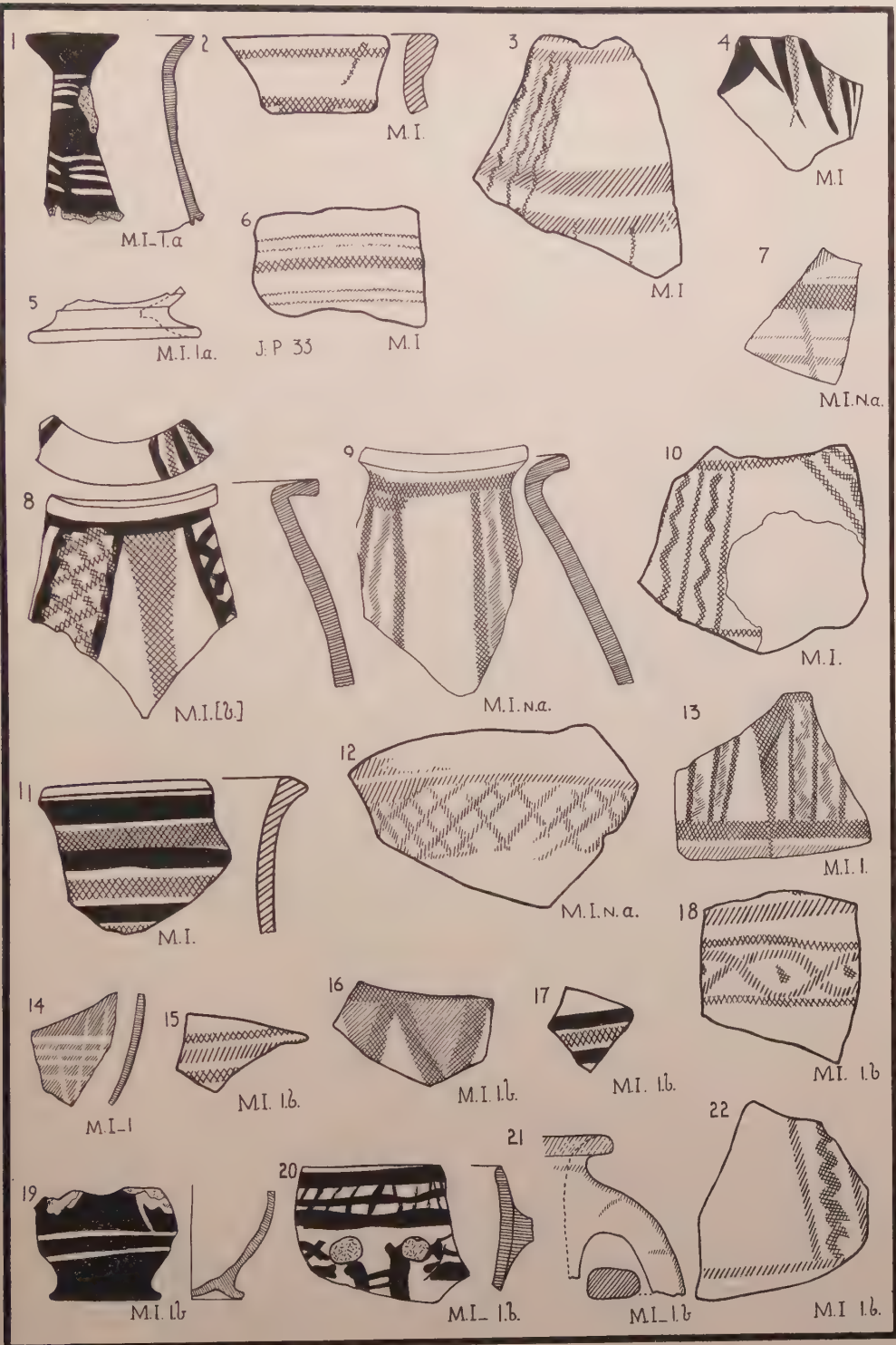
- [illegible]

JERICHO, 1933.

PLATE XXXI. DESCRIPTION OF PAINTED FRAGMENTS FROM UPPER LEVELS OF THE MIDDLE BUILDING AND ROOM M.I.1 (MOSTLY L.B.i).

No.

1. Grey ware, wh.m.; black; slip burnished; white dec. burnt grey.
M.I.-1.a.
2. Drab ware, wh.m.; wet-smoothed; dark brown dec. M.I.
3. Drab ware, few grits, wh.m.; wet-sm.; purple and lt. red dec. M.I.
4. Red ware, few grits, wh.m.; black and dark red dec. M.I.
5. Grey ware, wh.m.; grey slip burnished. M.I.-1.a.
6. Drab ware, small grits, wh.m.; wet-sm.; dark and lt. brown dec. M.I.
7. Drab ware, few grits, wh.m.; wet-sm.; purple and orange dec.
M.I.(N).a.
8. Drab ware, gritty, wh.m.; wet-sm.; purple and dark red dec.
M.I.(b.).
9. Brown ware, wh.m.; wet-sm.; purple and orange dec. M.I.(N).a.
10. Drab ware, coarse, wh.m.; pinkish slip; lt. red dec. M.I.
11. Drab ware, few large grits; wet-sm.; purple and red dec. M.I.
12. Drab ware, wh.m.; cream slip; lt. red dec. M.I.(N).a.
13. Drab ware, few large grits, wh.m.; purple and orange dec. M.I.-1.
14. Fine grey ware, wh.m.; black slip; white dec. burnt grey. M.I.-1.
15. Drab ware, wh.m.; wet-sm.; brown and lt. red dec. M.I.-1.b.
16. Drab ware, wh.m.; pink slip int.; wet-sm. ext.; brown and red dec.
M.I.-1.b.
17. Drab ware, wh.m.; pinkish slip burnished; purple and red dec.
M.I.-1.b.
18. Drab ware, wh.m.; wet-sm.; brown and orange dec. M.I.-1.b.
19. Fine grey ware, wh. finished; brown slip burnished; white dec.
M.I.-1.b.
20. Drab ware, few grits, wh.m.; wet-sm.; black dec. M.I.-1.b.
21. Buff ware, wh.m.; cream slip; orange dec. M.I.-1.b.
22. Drab ware, wh.m.; orange and brown dec. M.I.-1.b.



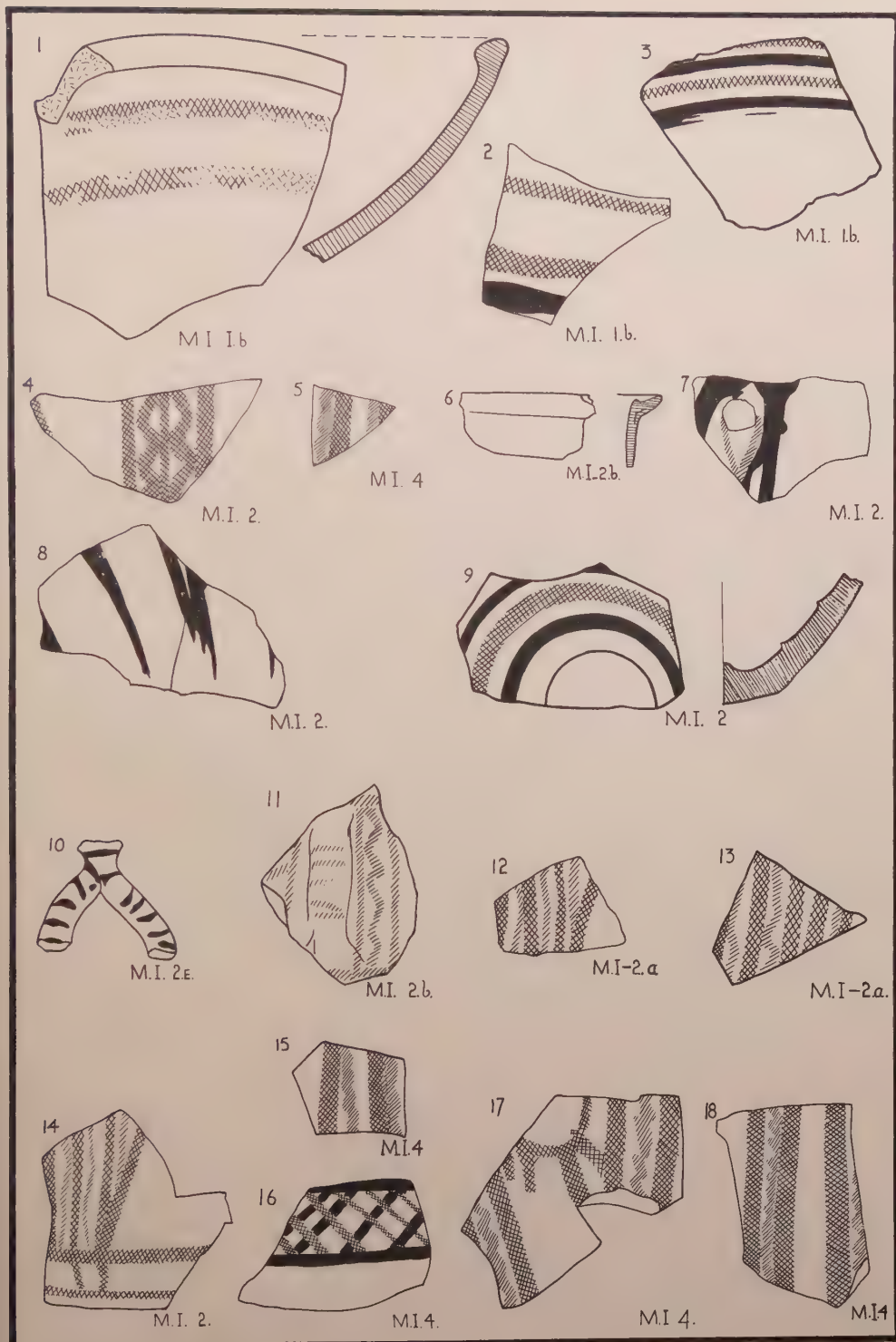
J.33. PAINTED POTTERY FRAGMENTS, ETC., FROM THE UPPER LAYERS OF MIDDLE BUILDING (M.B.) AND ROOM I.

JERICHO, 1933.

PLATE XXXII. DESCRIPTION OF PAINTED FRAGMENTS FROM FOUNDATION LEVEL OF THE MIDDLE BUILDING (MOSTLY L.B.i)

No.

1. Red ware, few grits, wh.m.; wet-sm.; brown dec. int. M.I.-1.b.
2. Brown ware, wh.m.; yellow slip burnished; purple and red ext. M.I.-1.b.
3. Brown ware, wh.m.; wet-sm.; purple and red dec. ext. M.I.-1.b.
4. Brown ware, few grits, wh.m.; drab slip; brown dec. M.I.-2.
5. Drab ware, mixed grits, wh.m.; wet-sm.; purple and red dec. M.I.-4.
6. Fine black ware, wh.m.; burnished. M.I.-2.b.
7. Drab ware, hand-m.; wet-sm.; black and brown dec. M.I.-2.
8. Red ware, few grits, wh.m.; wet-sm.; purple dec. M.I.-2.
9. Drab ware, large grits, coarse, wh.m.; black and red ext. M.I.-2.
10. Drab ware, few grits; wet-sm.; black dec. M.I.-2(E).
11. Brown ware, wh.m.; drab slip; orange dec. M.I.-2.b.
12. Drab ware, wh.m.; red and orange dec. M.I.-2.a.
13. Drab ware, fine grits, wh.m.; wet-sm.; black and red dec. M.I.-2.a.
14. Drab ware, wh.m.; wet-sm.; dark and lt. brown dec. M.I.-2.
15. Drab ware, fine grits, wh.m.; wet-sm.; purple and red dec. M.I.-4.
16. Drab ware, few grits, wh.m.; wet-sm.; black and dark red dec. M.I.-4.
17. Drab ware, wh. m.; wet-sm.; purple and red dec. M.I.-4.
18. Drab ware, fine grits, wh.m.; wet-sm.; purple and red dec. M.I.-4.



J.33. PAINTED POTTERY FRAGMENTS FROM FOUNDATION LEVEL (b), AND ABOVE, IN ROOMS M.I. 1, 2, 4.

Jericho, 1933

UPPER LEVELS, AREA M (MOSTLY L.B.)

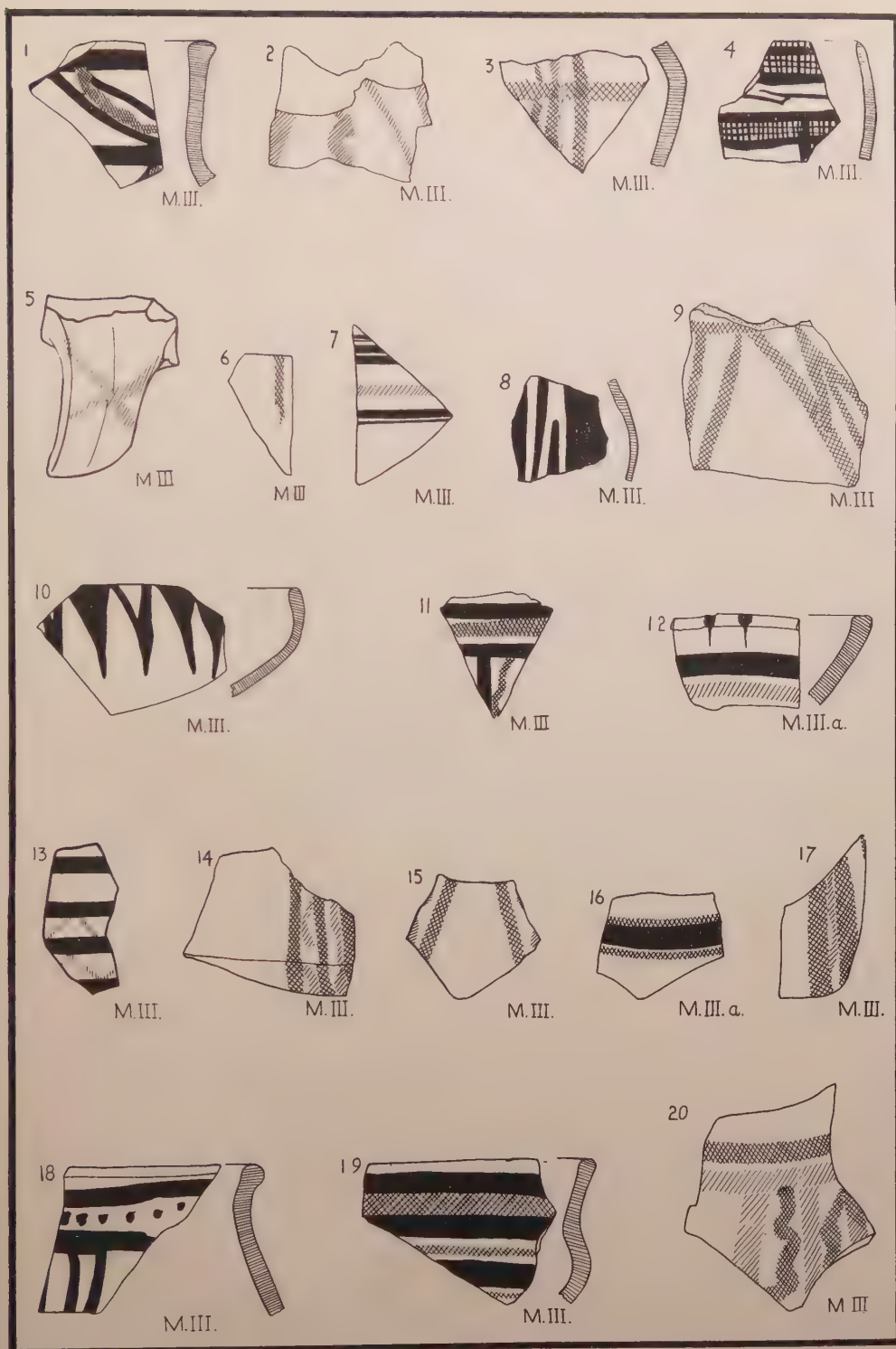
1. Drab ware, small grits; wet-sm.; brown and red dec. M.III
2. Brown ware, gritty; wh.m.; drab slip; brown and orange dec. M.III
3. Brown ware, gritty; wh.m.; drab slip; brown and orange dec. M.III
4. Grey ware, wh.m.; cream slip ext.; grey int.; brown dec. M.III
5. Drab ware, small grits; wet-sm.; brown and red dec. M.III
6. Drab ware, small grits; wet-sm.; brown and red dec. M.III
7. Drab ware, small grits; wet-sm.; brown and red dec. M.III
8. Drab ware, small grits; wet-sm.; brown and red dec. M.III
9. Drab ware, wh.m.; wet-sm.; brown dec. M.III
10. Drab ware, small grits; wet-sm.; brown and red dec. M.III
11. Red ware, few grits; wh.m.; black and red dec. M.III
12. Brown ware, gritty; wh.m.; white slip; black and red dec. M.III
13. Brown ware, gritty; wh.m.; white slip; black and red dec. M.III
14. Brown ware, gritty; wh.m.; white slip; black and red dec. M.III
15. Brown ware, gritty; wh.m.; white slip; black and red dec. M.III
16. Drab ware, small grits; wet-sm.; brown and red dec. M.III
17. Drab ware, small grits; wet-sm.; brown and red dec. M.III
18. Drab ware, small grits; wet-sm.; brown and red dec. M.III
19. Drab ware, small grits; wet-sm.; brown and red dec. M.III
20. Drab ware, small grits; wet-sm.; brown and red dec. M.III

JERICHO, 1933.

PLATE XXXIII. DESCRIPTION OF PAINTED FRAGMENTS FROM UPPER LEVELS OF AREA M.III (MOSTLY L.B.i).

No.

1. Drab ware, small grits, wh.m.; wet-sm.; brown and red dec. M.III.
2. Buff ware, grits, wh.m.; drab slip ext. and int.; dull red dec. M.III.
3. Brown ware, gritty, wh.m.; drab slip; brown and orange dec. M.III.
4. Grey ware, wh.m.; cream slip ext.; grey int.; brown dec. M.III.
5. Drab ware, grits, wh.m.; wet-sm.; light red dec. M.III.
6. Drab ware, wh.m.; wet-sm.; black dec. M.III.
7. Drab ware, wh.m.; pinkish slip; brown and orange dec. M.III.
8. Brown ware, gritty; red int.; brown slip ext.; white dec. M.III.
9. Drab ware wh.m.; wet-sm.; brown dec. M.III.
10. Red ware, fine grits, wh.m.; red slip ext. and int.; black dec. M.III.
12. Red ware, few grits, wh.m.; black and red dec. M.III.a.
13. Brown ware, gritty, wh.m.; white slip; black and red dec. M.III.
14. Drab ware, few grits, wh.m.; wet-sm.; purple and orange dec. M.III.
15. Buff ware, mixed grits, wh.m.; wet-sm.; purple and red dec. M.III.
16. Drab ware, gritty, wh.m.; coarse; wet-sm.; purple and black.
M.III.a.
17. Drab ware, few grits, wh.m.; wet-sm.; red and orange dec. M.III.
18. Drab ware, wh.m.; wet-sm.; black dec. M.III.
18. Drab ware, wh.m.; wet-sm.; black dec. M.III.
19. Drab ware, gritty, wh.m.; wet-sm.; black and red dec. M.III.
20. Red ware, gritty, wh.m.; wet-sm.; red and light brown dec. M.III.

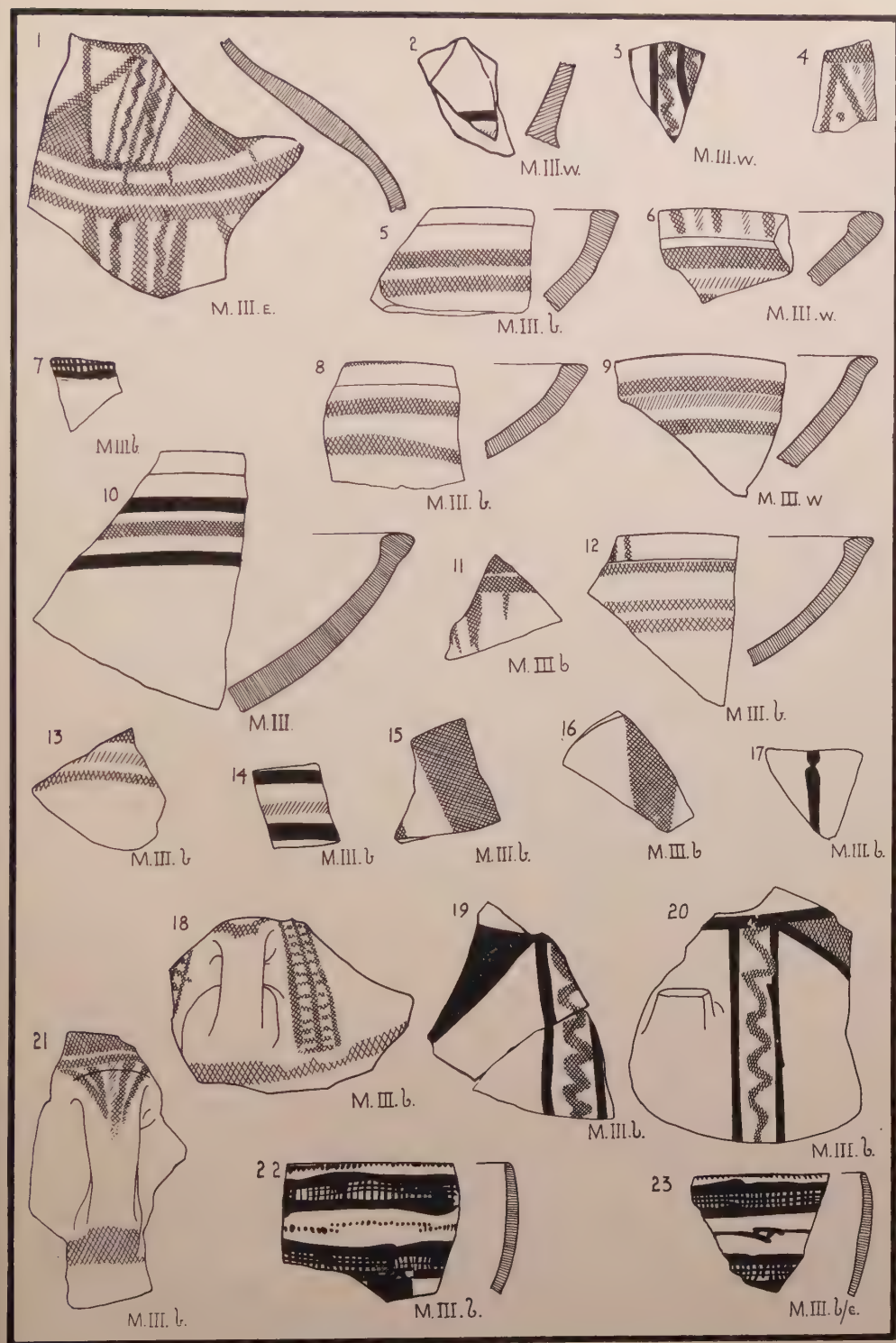


J.33. PAINTED POTTERY FRAGMENTS FROM THE UPPER LEVELS IN AREA MIII.

JERICHO, 1933.

PLATE XXXIV. DESCRIPTION OF PAINTED FRAGMENTS FROM
ABOUT FOUNDATION LEVEL OF AREA M.III. (MOSTLY L.B.i).

- | | | |
|-----|--|------------|
| No. | | |
| 1. | Drab ware, gritty, wh.m.; cream slip; brown dec. | M.III(E). |
| 2. | Red ware, wh.m.; red slip ext. and int.; black and red dec. | M.III(W). |
| 3. | Red ware, wh.m.; wet-sm.; black and dark red dec. | M.III(W). |
| 4. | Brown ware, wh.m.; wet-sm.; brown and orange dec. | M.III(W). |
| 5. | Drab ware, few large grits, wh.m.; wet-sm.; brown dec. int. | M.III.b. |
| 6. | Drab ware, few large grits; wet-sm.; purple and orange dec. int. | M.III(W). |
| 7. | Grey ware, gritty, wh.m.; white slip ext. and int.; brown dec. | M.III.b. |
| 8. | Buff ware, wh.m.; wet-sm.; purple dec. int. | M.III.b. |
| 9. | Brown ware, wh.m.; wet-sm.; purple dec. int. | M.III(W). |
| 10. | Brown ware, few grits, wh.m.; wet-sm.; black and dark red int. | M.III. |
| 11. | Drab ware, wh.m.; drab slip; dull red dec. | M.IIIb. |
| 12. | Drab ware, wh.m.; wet-sm.; brown dec. int. | M.III.b. |
| 13. | Buff ware, wh.m.; wet-sm.; purple and orange dec. int. | M.III.b. |
| 14. | Drab ware, wh.m.; red slip ext.; black and red dec. ext. | M.III.b. |
| 15. | Drab ware, red surface, wh.m.; wet-sm.; purple dec. | M.III.b. |
| 16. | Drab ware, int. rough, wh.m.; wet-sm.; dark red dec. | M.III.b. |
| 17. | Drab ware, wh.m.; wet-sm.; brown dec. | M.III.b. |
| 18. | Drab ware, grey core, int. rough, wh.m.; wet-sm.; red dec. | M.III.b. |
| 19. | Drab ware, int. rough, wh.m.; wet-sm.; black and dark red dec. | M.III.b. |
| 20. | Drab ware, int. rough, wh.m.; wet-sm.; black and dark red dec. | M.III.b. |
| 21. | Yellowish ware, gritty, wh.m.; coarse cream slip ext.; red dec. | M.III.b. |
| 22. | Brown ware, wh.m.; cream slip ext. and int.; dark brown dec. | M.III.b. |
| 23. | Brown ware, wh.m.; white slip ext. and int.; brown dec. | M.III.b/c. |



J.33. PAINTED POTTERY FRAGMENTS FROM ABOVE AND AT FOUNDATION LEVEL (b) IN AREA M.III.

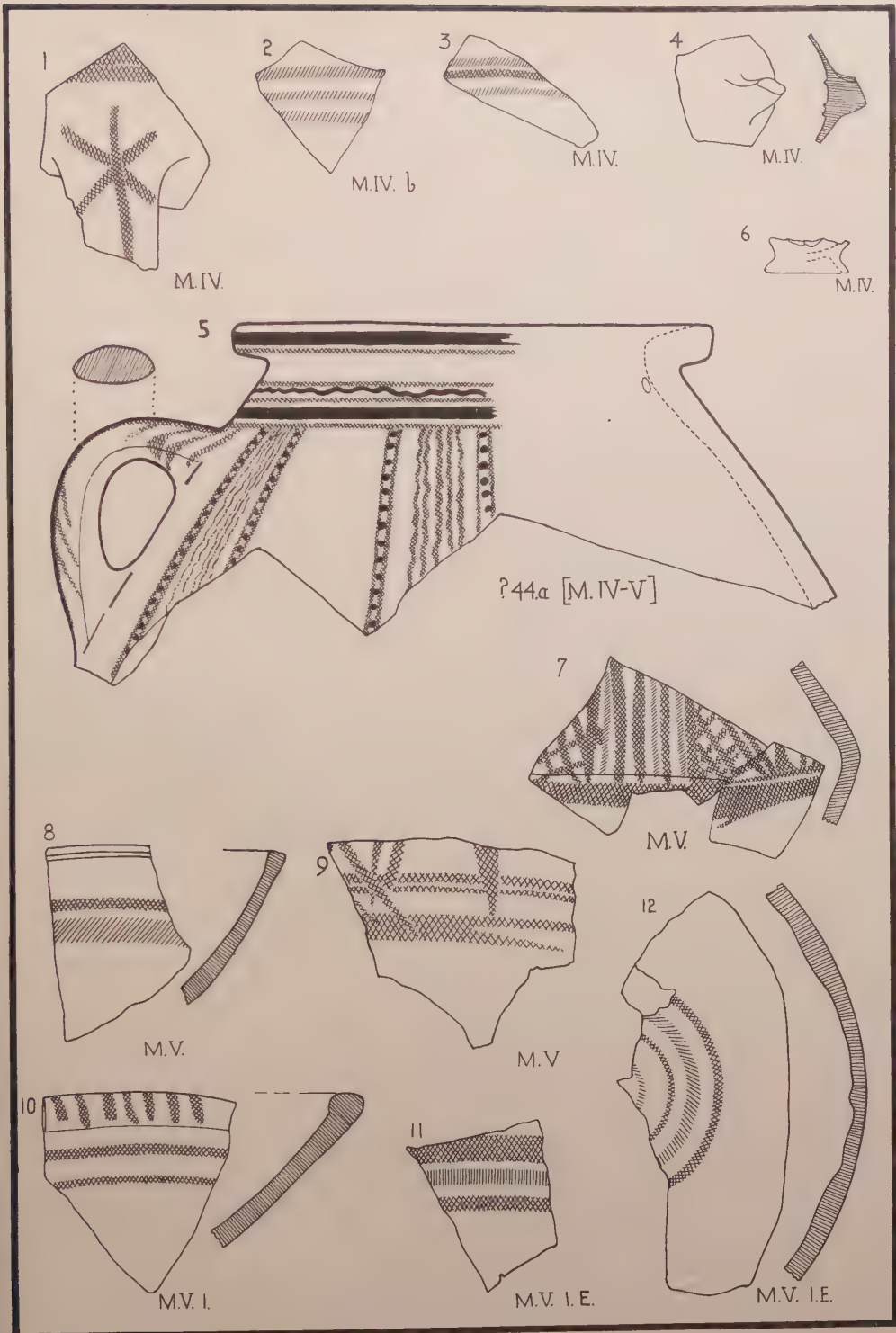
1933 - 1933

- [illegible]

JERICHO, 1933.

PLATE XXXV. DESCRIPTION OF PAINTED FRAGMENTS FROM AREAS M.IV. AND M.V. (MOSTLY L.B.i).

- | | | |
|-----|---|----------|
| No. | | |
| 1. | Brown ware, gritty, wh.m.; wet-sm.; brown dec. | M.IV. |
| 2. | Buff ware, wh.m.; yellow slip burnished; orange dec. | M.IV.b. |
| 3. | Buff ware, wh.m.; cream slip ext.; red and black dec. | M.IV. |
| 4. | Fine grey ware, wh.m.; burnished; white dec. burnt grey. | M.IV. |
| 5. | Drab ware, gritty, coarse, wh.m.; yellow slip burnished; black and dark red dec; see also opposite Pl. XXXVIII. ?44.a. (M.IV.-V). | |
| 6. | Fine grey ware, ext. fired red; wh.m. | M.IV. |
| 7. | Drab ware, wh.m.; wet-sm.; purple and orange dec. | M.V. |
| 9. | Drab ware, wh.m.; wet-sm.; reddish dec. | M.V. |
| 10. | Drab ware, some grits, wh.m.; burnt; purple dec. | M.V.1.E. |
| 11. | Brown ware, fired red on surface, wh.m.; black and red dec. | M.V.1.E. |
| 12. | Drab ware, wh.m.; wet-sm.; purple and red dec. | M.V.E. |



J 33. PAINTED POTTERY FRAGMENTS FROM AREAS M.IV AND M.V.

ERICHO, 1933.

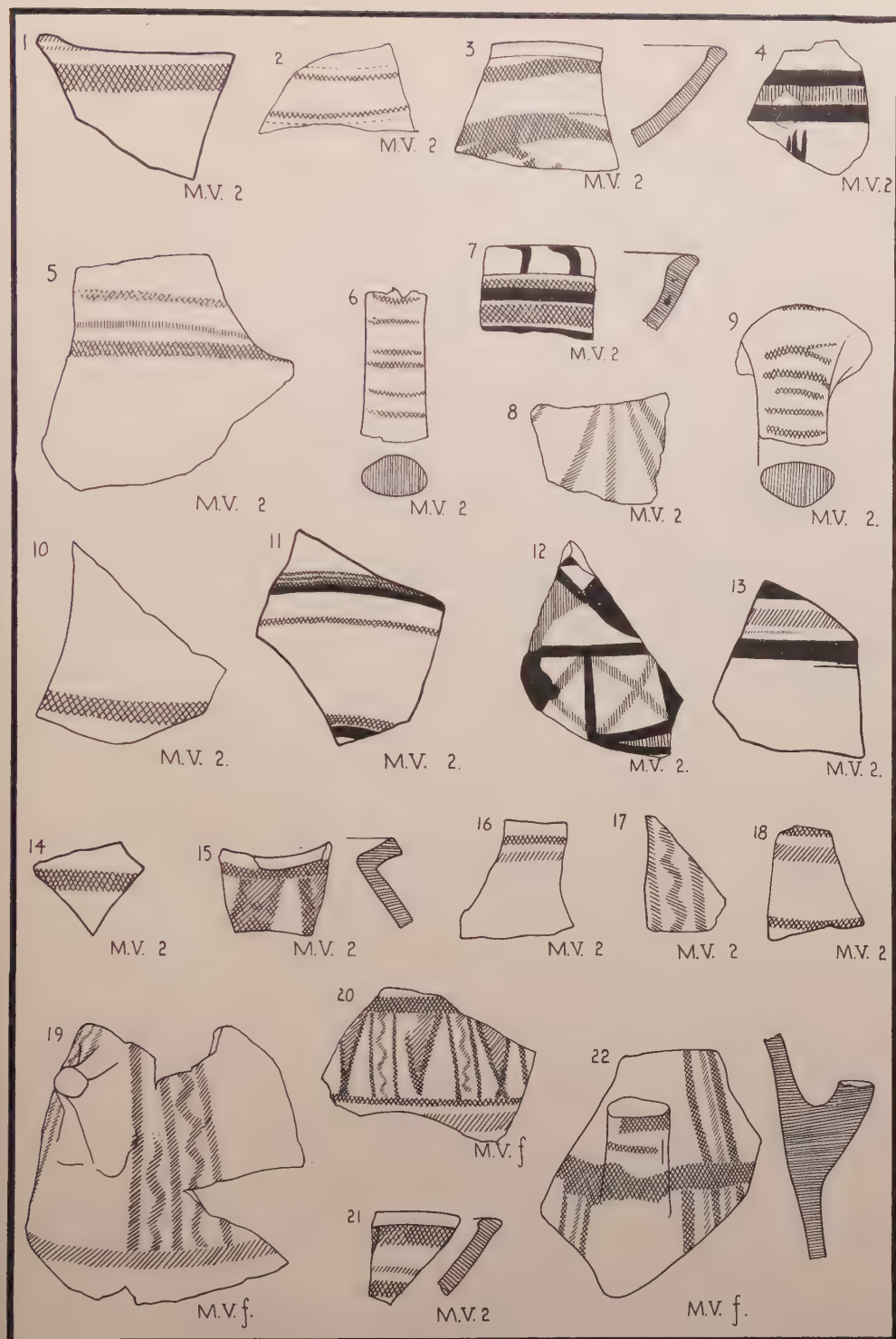
AND OPEN (L) (L.R.)

[illegible]

JERICHO, 1933.

PLATE XXXVI. DESCRIPTION OF POTTERY FROM AREA M.V.2. AND OVEN (f.) (L.B.i).

No.		
1.	Drab ware, wh.m.; wet-sm.; purple and orange dec.	M.V.2.
2.	Drab ware, few grits, wh.m.; dark red dec.	M.V.2.
4.	Buff ware, wh.m.; cream slip burnished; black and dark red dec.	M.V.2.
5.	Buff ware, gritty, wh.m.; wet-sm.; brown and red dec.	M.V.2.
6.	Drab ware, fine grits; wet-sm.; brown dec.	M.V.2.
7.	Red ware, wh.m.; black and red dec.	M.V.2.
8.	Drab ware, coarse, wh.m.; vert. shaved; pink slip; orange dec.	M.V.2.
9.	Buff ware, few grits; wet-sm.; brown dec.	M.V.2.
10.	Drab ware, wh.m.; yellow slip; brown dec.	M.V.2.
11.	Drab ware, wh.m.; wet-sm.; black and purple dec.	M.V.2.
12.	Red ware, wh.m.; wet-sm.; black and dark red dec.	M.V.2.
13.	Drab ware, fine grits, wh.m.; wet-sm.; black and lt. red dec.	M.V.2.
15.	Drab ware, wh.m.; wet-sm.; brown and red dec.	M.V.2.
16.	Drab ware, wh.m.; wet-sm.; black and lt. red dec.	M.V.2.
17.	Buff ware, wh.m.; yellowish slip; red dec.	M.V.2.
18.	Drab ware, fine grits, wh.m.; pinkish slip; purple and red dec.	M.V.2.
19.	Drab ware, wh.m.; wet-sm.; dull red dec.	M.V.f.
20.	Brown ware, wh.m.; wet-sm.; purple and red dec.	M.V.f.
22.	Drab ware, wh.m.; roughly made; purple and orange dec.	M.V.f.



J.33. PAINTED POTTERY FRAGMENTS FROM AREA AND ROOM M.V.2 AND DEPOSIT f.



ERICHO, 1933.

THE XXIII DOMESTIC TO THE FIRST EPOCH

THE XXIII DOMESTIC TO THE FIRST EPOCH

No.

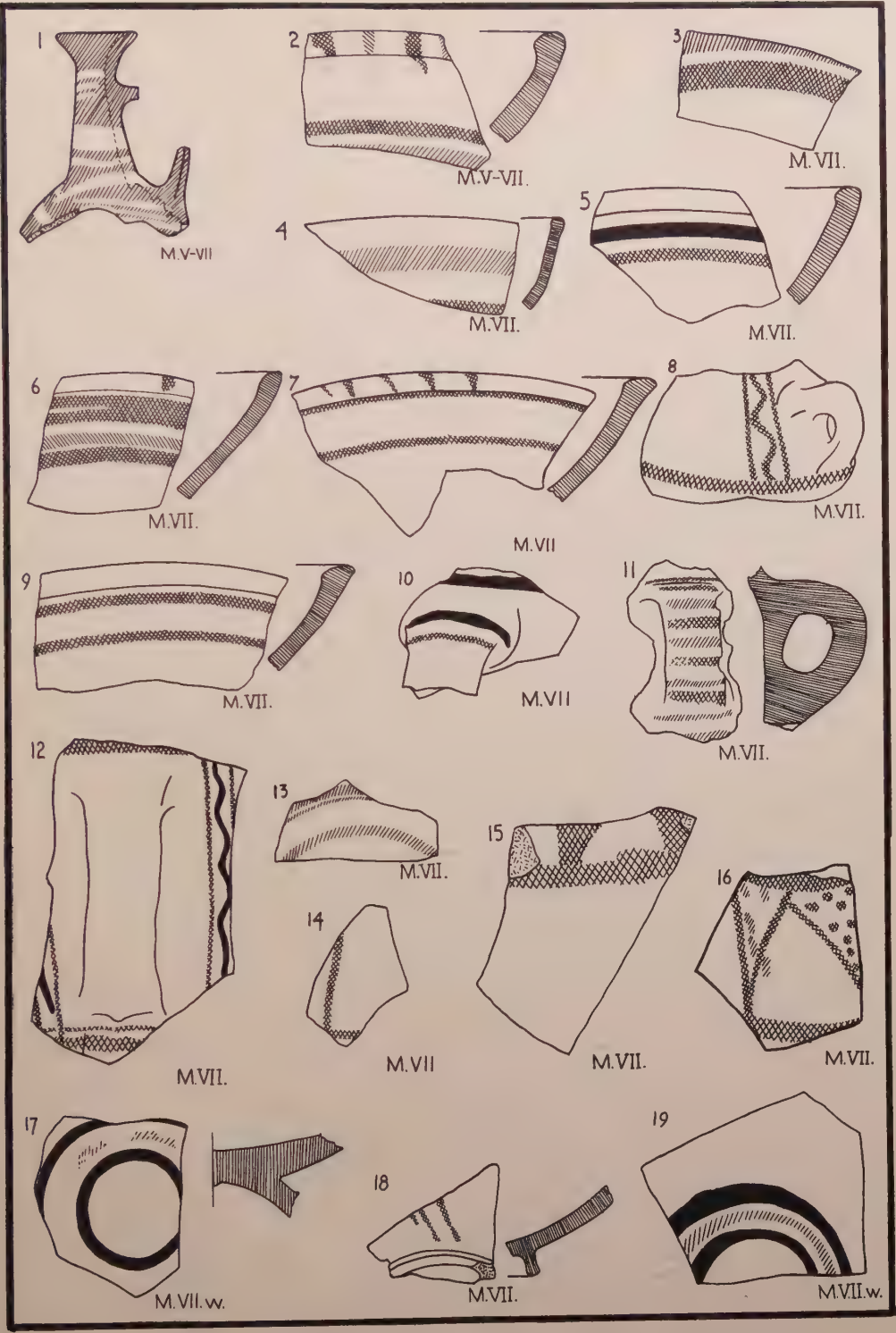
1. Grey ware, gritty; hand made; brown slip burnished.
2. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
3. Red ware, wh.m.; cream slip; brown and orange dec.
4. Drab ware, wh.m.; wet-sm.; red and brown dec. ext.
5. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
6. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
7. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
8. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
9. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
10. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
11. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
12. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
13. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
14. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
15. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
16. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
17. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
18. Drab ware, wh.m.; wet-sm.; purple and red dec. int.
19. Drab ware, wh.m.; wet-sm.; purple and red dec. int.

JERICHO, 1933.

PLATE XXXVII. DESCRIPTION OF PAINTED FRAGMENTS FROM M.V. AND M.VII. (?L.B.i).

No.

- | | |
|--|-----------|
| 1. Grey ware, gritty, hand made; brown slip burnished; white dec. | M.V.-VII. |
| 2. Drab ware, wh.m.; wet-sm.; purple and red dec. int. | M.V.-VII. |
| 3. Red ware, wh.m.; cream slip; brown and orange dec. | M.VII. |
| 4. Drab ware, wh.m.; wet-sm.; red and brown dec. ext. | M.VII. |
| 5. Drab ware, wh.m.; yellow slip; purple and red dec. int. | M.VII. |
| 6. Red ware, wh.m.; wet-sm.; purple and red dec. int. | M.VII. |
| 7. Red ware, wh.m.; wet-sm.; brown dec. | M.VII. |
| 8. Drab ware, ext. fired red, wh.m.; wet-sm.; purple dec. | M.VII. |
| 9. Drab ware, wh.m.; wet-sm.; brown dec. | M.VII. |
| 10. Drab ware with grits; wet-sm.; black and brown dec. | M.VII. |
| 11. Buff ware, coarse; wet-sm.; purple and red dec. | M.VII. |
| 12. Drab ware, wh.m.; wet-sm.; purple and black dec. | M.VII. |
| 13. Red ware, wh.m.; wet-sm.; brown dec. | M.VII. |
| 14. Drab ware, fine grits, wh.m.; wet-sm.; purple dec. | M.VII. |
| 15. Drab ware, grey core, mixed grits, wh.m.; wet-sm.; purple dec. | M.VII. |
| 16. Drab ware, mixed grits, wh.m.; buff slip; purple and orange dec. | M.VII. |
| 17. Drab ware, red surfaces, wh.m.; wet-sm.; black and red dec. | M.VII.W. |
| 18. Drab ware, wh.m.; wet-sm.; brown dec. | M.VII. |
| 19. Red ware, wh.m.; wet-sm.; black and red dec. | M.VII.W. |



J.33. PAINTED POTTERY FRAGMENTS FROM AREA M.VII.

JERICHO, 1933.

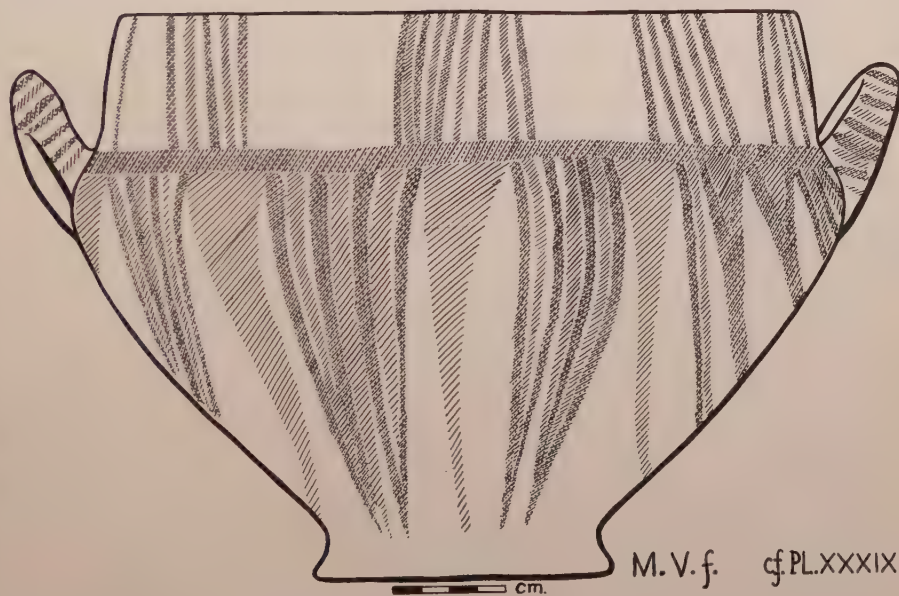
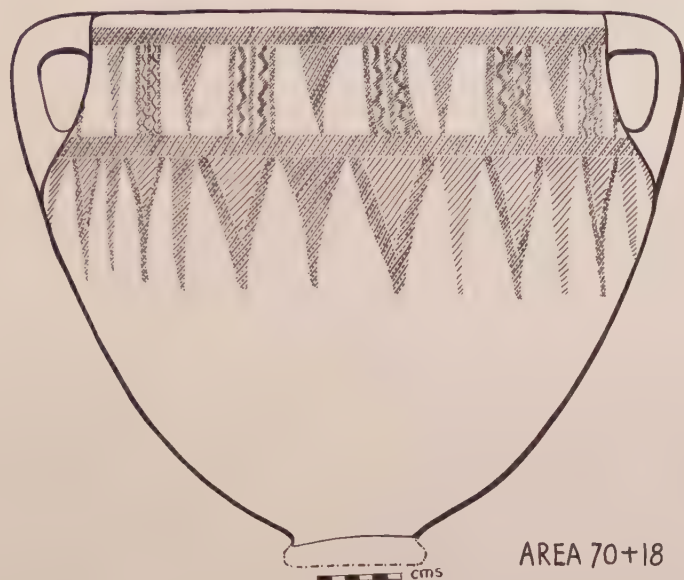
PLATE XXXVIII. DESCRIPTION OF LARGE PAINTED BOWLS FROM THE CITY AREA.

The upper bowl is of pinkish ware, wheel made, wet-smoothed, with perpendicular handles. The painted ornament consists of the snake motif in panels between elongated inverted triangular forms around the neck and of triangular forms only around the shoulder. The colours are brown and orange. The bowl measures 36.3 cms. across the mouth. Found in areas 70 and 18, immediately above a burnt layer.

The lower bowl is of drab ware, wheel made, wet-smoothed, and it has lateral handles. The painted decoration consists of sets of stripes around the neck and of elongated tapering forms running down the body of the vessel, painted in brown and red. Fragments of this vessel were found in different areas, most of it being plastered on the outside of an oven, M.V.f. See Pl. XXXIX, No. 8.

Both these bowls have been built up from fragments.

The upper portion of a large jug shown on Pl. XXXV is of brown ware, gritty, is wheel made, and is wet-smoothed inside and has a yellow slip outside. There is one vertical handle opposite which are two suspension holes in the neck, 8 cms. apart. There are concentric rings of black and red on the top of the rim, and the body is decorated with panels of the snake motif in red, edged with rows of black dots between red lines. The colours are remarkably fresh and bright. Found in fragments, mostly in areas M.IV. and M.V., above Room 44.



J.33. PAINTED POTTERY VESSELS RESTORED FROM FITTING FRAGMENTS. AREAS 70, 8; AND M.V.F., ETC.

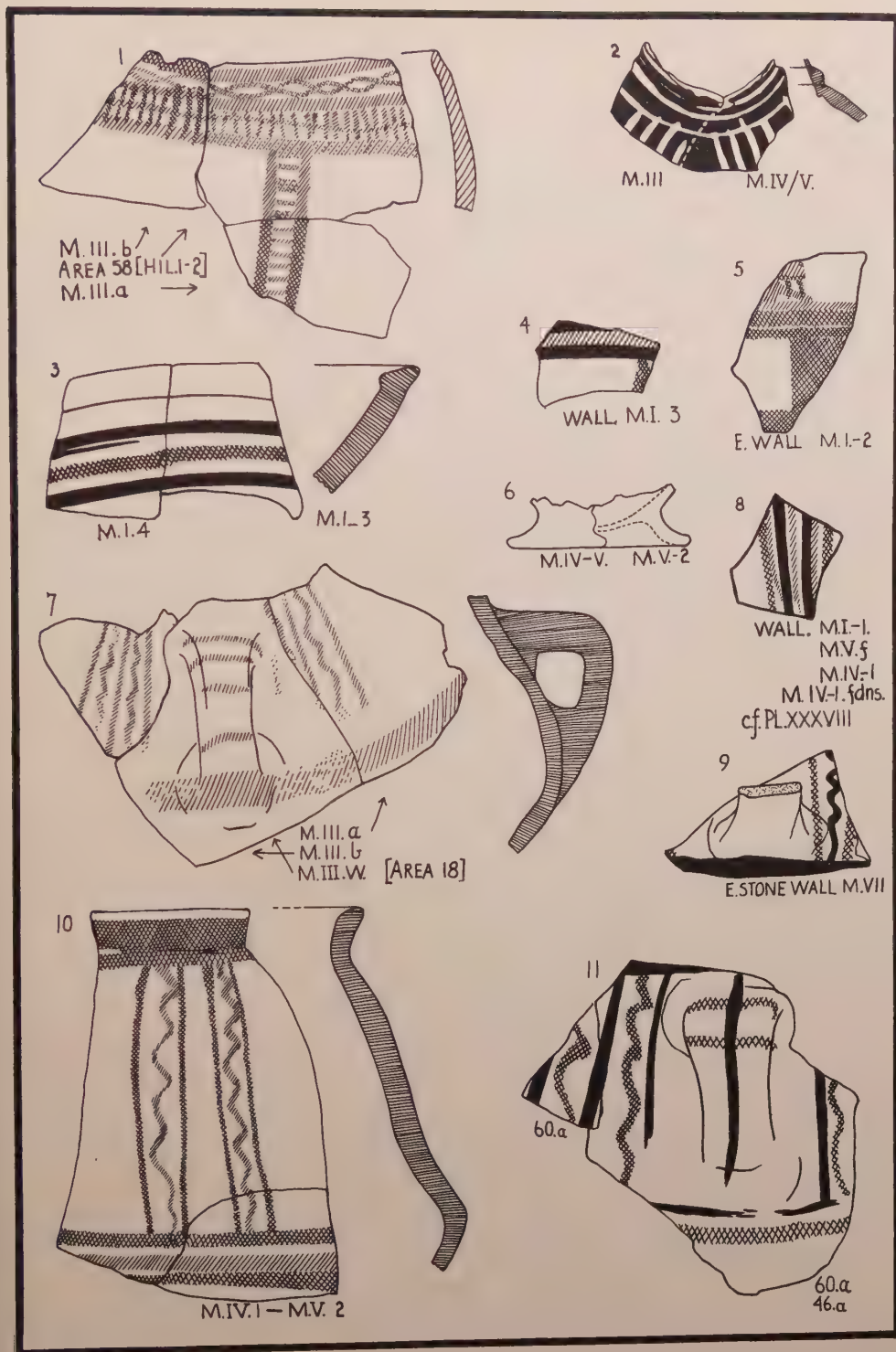
JERICHO, 1933.

PLATE XXXIX. DESCRIPTION OF PAINTED FRAGMENTS FROM DIFFERENT SPOTS BUT FITTING TOGETHER (MAINLY L.B.i).

No.

1. Light brown ware, wh.m.; wet-sm.; brown dec. { (Hil. 1-2) Area 58.
(A.III) M.III.a.
M.III.b.
2. Fine red ware, hand m., wh. finished; brown slip, white dec. { M.III.
M.IV.-V
3. Brown ware, red surfaces, wh.m.; wet-sm.; black and red dec. { M.I.-3.
M.I.-4.
4. Drab ware, few large grits, wh.m.; yellow slip; black and dark red dec.
South wall. M.I.-3.
5. Red ware, wh.m.; pink slip; purple and dark red dec. East wall.
M.I.-2.
6. Fine red ware, grey core, wh. finished; brown slip. { M.IV.-V.
M.V.-2.
7. Red ware, wh.m.; rough int.; cream slip ext.; red dec. { A.III.=M.III.a.
M.III.b.
M.III. outside W. wall=area 18.
8. Drab ware, wh.m.; wet-sm.; light and dark brown and orange dec.
M.I.-1. wall M.V.f.; M.IV.-1; M.IV.-I. fdtns.
9. Drab ware, wh.m.; wet-sm.; red and black dec. East stone wall.
10. Drab ware, few grits, wh.m.; wet-sm.; black and red dec. { M.IV.-1.
M.V.-2.
11. Brown ware, gritty, coarse, wh.m.; rough int.; wet-sm. ext.; brown
and dark red dec. { 60.a.
46

[Note A = upper layers of M, down to floor level.]



J.33. PAINTED POTTERY FRAGMENTS FOUND IN DIFFERENT SPOTS AND LEVELS BUT FITTING TOGETHER



JERICHO, 1933.

ABOVE: M-BUILDING IN THE MIDDLE STRATUM.
BELOW: PALACE STOREROOMS IN LOWER STRATUM,



JERICO, 1933.

ABOVE: STOREROOMS 40-45 VIEWED FROM THE SOUTH.
BELOW: STORE JARS ON LOWER FLOOR OF ROOM 42.



JERICO, 1933.
LOWER FLOORS OF ROOMS 40, 44.
(*Cf. Plate XVI.*)



JERICO, 1933.

1. TABLET FROM AREA M. VII. c. actual size.
2. VASES (RESTORED) FROM ROOM 30. Scale c. 1:9.
3. ASTARTE FROM AREA M. V. c. actual size.
4. SNAKE VASE FROM ROOM 68. Scale c. 1:4.





JERICHO, 1933.

ABOVE: BIRD-VASE FROM UPPER LAYER IN ROOM 73.
BELOW: DRINKING-CUP FROM DEBRIS OF ROOM 40.

Scale—1:3 approx.



REVIEWS

The Conquest of the Maya. By J. LESLIE MITCHELL.
Jarrolds, 1934. 18s.

This book is far more than is indicated by its title. It is, in fact, a comprehensive history of the Maya of Central America from the earliest Old Empire days to the final obliteration of the New Empire by the Spanish invaders in 1541. It is no mere compendium of historical facts, for the author deals with the subject in a popular and entertaining manner, and the book should go far to popularise in England the cult of the Maya, which has hitherto lacked the attention bestowed upon it in the United States and on the Continent.

A vivid pen picture is given, based on the monuments, the codices, and the early Spanish and native writers, of the habits, customs, religion, and mode of life of all classes of the Maya: rulers, nobles, priests, artisans, and slaves, and their womenkind, which seems to bring to life the ancient dwellers in these mysterious forest-enshrouded cities, and is, probably, considering the historical material available, reasonably accurate. The author identifies the double-headed monster, so frequently found in both the Maya Old and New Empire, with the Makara, the winged disc of Ocosingo with that of Egypt, and the elephants on Stela B at Copan with the Indian elephant, and suggests that they were portrayed by artists who had never seen the originals, but were dependent for their models solely upon tradition handed down by Asiatic immigrants. The book is reasonably free from typographical errors, but in the maps of the Old and New Empires, Pusilhā and Lubaantum are placed on the coast of British Honduras, whereas they are many miles in the interior, and Sta Rita, a late New Empire site, is placed in the Old Empire.

The period to which the site of Tzibanche belongs is not unknown, as it was dated by a jade plaque, some two years ago, in Katun 4 of Bactun 10. The author speaks of the temples and palaces of Pusilhā, though only monoliths were found at this site.

The point is well made that, as the New Empire cities ceased to use the Long Count early in Bactun 10, contemporaneously with those of the Old Empire, the cessation of this form of dating in the latter cannot be regarded as proof that they were deserted at this period, as has hitherto been believed.

It is perhaps a pity that Lehman's Correlation of Maya and Christian chronology is used, as it is not the one usually accepted by either English or American archaeologists, and does not fit in well with the later Katun ending dates at Chichen Itza.

If, as the author believes, there existed 'a well followed emigration route, from the beginning of the Christian era until the end of the thirteenth or fourteenth centuries,' between Asia and Central America, it would account very satisfactorily for the two separate and distinct cultural contacts which the Maya appear to have made—one during the Old Empire the other during the New. The history of Yucatan during the New Empire, with the endless internecine wars, invasions, treaties, and migrations of the Xiu, Cocoms, Itzas, and other tribes, is in no way clarified by dating the League of Mayapan from about 1200 A.D. to 1400 A.D., instead of from 1000 A.D. to 1200 A.D., the usually accepted period, though the former date is more or less forced upon one by the adoption of Lehman's Correlation.

T. W. F. GANN.

Melanesian Design: a Study of Style in Wood and Tortoise-shell Carving.
2 vols. By G. A. REICHARD. Humphrey Milford, Oxford University Press. 50s.

To a less cautious student this subject might have offered an attractive field for imaginative flights in the realms of symbolism, evolution or chronology. Miss Reichard is clearly unprejudiced by preconceived opinions or established theories on primitive art. She concentrates her attention on facts and considers them without bias; her conclusions are sound and are justified by the evidence. As they are drawn from a comprehensive though limited range of subjects, they admit of general application, and her essay affords a firm basis for future work in a wider field. In the absence of reliable evidence she avoids any attempt to interpret the workings of the native mind, yet her simple explanation of the way in which the composition of a design may evolve unconsciously into the form of a natural object is probably very near the truth.

The tabulated analyses of specimens, the Index, and the comprehensive list of text references to plates, all reflect the meticulous care for detail which characterises the work.

The book is very well produced and the cover echoes the simple dignity of the designs which it encloses. The plates of carvings are reproduced from rubbings; this ensures an accuracy of representation which it is almost impossible to attain by other means. The designs are worthy of reproduction, for they show that sense of fitness which is good taste and which is inherent in unspoiled native work. The lines of the ornament are usually structural and are suggested by the shape of the object to which they are applied. In the case of bowls, deep carving is confined to the rims, which are thus emphasised, whereas all-over patterns are executed in fine incision or in paint. Only when the craftsman attempts an innovation does he go astray; the Admiralty Islands bowls with double spiral handles are not pleasing because the added width of the handles is not counterbalanced by a corresponding spread of the foot.

For the anthropologist the value of the book lies in its use of art-analysis as a means of establishing or confirming theories of cultural relations and movements of peoples. To the teacher or student of design it affords a remarkable series of exercises in the combination of a very few simple elements to form an infinite variety of complex designs.

ELAINE TANKARD.

Parthian Pottery from Seleucia on the Tigris. By NEILSON C. DEBEVOISE.
University of Michigan Studies. Humanistic Series, Vol. XXXII,
1934. University of Michigan Press, Ann Arbor, Michigan. \$3.

This volume presents a record of the Parthian pottery ranging from 141 B.C. to 200 A.D. found in the excavations at Tel Umar, Iraq, the ancient Seleucia, from 1927 to 1932.

The work is very well done, the four hundred odd type drawings are excellent, the supplementary photographs reproduced in half-tone are of high quality, and the price is commendably moderate. Yet the reader would perhaps have the right to make one serious complaint. The excavation discovered five periods in the stretch of three hundred odd years covered by the material, yet, though the book seems to contain all the information that a careful up-to-date excavation might have been expected to obtain, if the reader wishes to get any idea of the changes or development that may have taken place during those five periods he has got to work very hard. For the material is presented in a series of 417 drawings of types accompanied indeed on the facing page by a description of each vessel and a statement of the find level, and by a table which gives the numbers of each type found in each level, a full presentment of all the facts which yet has conveyed very little to one reader. The types most characteristic of each of the five levels should have been presented together, if necessary in a supplementary series of plates. It would seem, however, from pp. 10 and 11 that the method adopted of grouping the finds by types from the very beginning may have obscured the desirability of a chronological presentment.

The book is completed by a very interesting chapter on 'Glaze and Glaze Analyses.'

J. P. DROOP.

Wessex: an Annual Record of the Movement for a University of Wessex.
Vol. III, no. 1. University College, Southampton, 1934. 1s. 6d.

This publication offers a mixture of work of very attractive quality. The activities of University College, Southampton, with definite reference to the sub-title of the journal, are recorded in 'Notes and Comments,' and there is rightly a geographical reference to Wessex in the majority of the papers that follow. Among these we should single out as the most delightful, 'A Statesman's Playground,' a very sympathetic sketch by J. W. Lindley of Sir Edward Grey's holidays in Hampshire, and as

the heaviest in quality, 'Man as Salmon Vermin,' an account of the ill-effects of man's mistaken activities on salmon stocks in the Avon and elsewhere, by Mr. John Berry of the Avon Biological Research. The heaviness of this calls for a protest, for it is due not to any lack of interest in the subject but to the writer's choice of language, of which the following is perhaps an extreme but not unfair example: 'In the Hampshire Avon salmon usually spawn about December, although many of them have been in the river for eight or ten months previously, *waiting until physiological metamorphosis of their reproductive organs together with pertinent conditions of the variant (sic) physical factors of their environment should conduce to the ineluctable consummation of their entity in the perpetuation of their species.*'¹ The word 'ineluctable,' by the way, suggests that salmon cherish a Pauline ideal of virginity, which is overborne by their natural instincts.

There is a good appreciation of the Austrian poet Rilke, by his translator, Mr. J. B. Leishman, and an account of the 1933 expedition to Spitzbergen, two members of which, including the writer, Mr. E. E. Mann, came from University College. Interspersed are some pleasant verses, originals and translations.

J. P. DROOP.

Corpus Vasorum Antiquorum. Providence: Museum of the Rhode Island School of Design. Fascicule 1.

The Robinson Collection. Baltimore, M.D. Fascicule 1. U.S.A. Fascicules 2 and 4. Harvard University Press.

These fascicules hardly call for detailed comment, for in both the text seems perfectly adequate and the photography and reproduction admirable. This is emphasised by the flimsiness of the following criticisms:—

1. In connection with vases I prefer the Rhode Island form 'Cypriote' to the Baltimore 'Cyprian,' which has a derived meaning only indirectly connected with the island of Cyprus.

2. I am doubtful whether the vase shown in Rhode Island, Pl. VIII, 1*a* and 1*b*, is Attic. It has a Boeotian look, though, without seeing it, I would not wish to be positive.

3. I do not think that the fragments of Lezoux ware (Rhode Island, Pl. XXXI, 5*a* and *b*) can come from a Form 30, but I should be sorry to have to supply an alternative.

4. Sparta (*B.S.A.*, XIII, pp. 162 ff., fig. 7*e*) also supplied Hellenistic parallels to the vase shown in Rhode Island, Pl. XXX, 10. They were published as lekythoid amphorae.

5. And lastly, I am doubtful if anything is achieved beyond a sacrifice to the god of completeness by including the sherds shown in Baltimore, Pls. IV-VIII.

J. P. DROOP.

1. The italics are mine.

The Thutmosid Succession: the Oriental Institute of the University of Chicago: Studies in Ancient Oriental Civilisation, No. 8. By WILLIAM F. EDGERTON. Pp. ix+44, with 5 Figures in the text. University of Chicago Press, Chicago, Illinois, and Cambridge University Press, 1933. 4s. 6d.

In this admirable booklet Mr. W. F. Edgerton sets forth, briefly but plainly, his reasons for believing that the late Professor Sethe's complicated theory as to the order of succession of the Thutmosids is no longer tenable. It was the supposed condition of various inscribed and sculptured temple walls that led Sethe to twist the plain meaning of the existing written records to suit what he imagined were the demands of the archaeological evidence. But a most painstaking examination of these very reliefs and inscriptions has convinced Edgerton that their condition is other than Sethe thought it to be, and in view of the facts, as marshalled by him, his conclusion seems to be the only possible one. This conclusion is that Thutmose I was succeeded on his death by his son Thutmose II. When Thutmose II died there was a co-regency of Hatshepsut and Thutmose III, the latter being then a mere child. The co-regency lasted till the death of Hatshepsut. 'The theory that the joint reign of Hatshepsut and Thutmose III was interrupted by a second reign of Thutmose II, or of Thutmose I, or of these two together, is (1) contradicted by contemporary narratives, which tell us that Thutmose I and Thutmose II died before the accession of Thutmose III or of Hatshepsut, and (2) totally unsupported by evidence of any kind, when the evidence is rightly interpreted.'

Edgerton's final words constitute a warning that Egyptologists may well take to heart. 'It is highly significant that we have here a philologist consciously warping the literary evidence to fit a theory which he thinks is demanded by archaeology; while the archaeologist Winlock, after working for years at Deir el-Bahari, finds himself able without difficulty to accept the literary evidence at its face value, using it in the manner in which Sethe also would use it if it stood alone.'

A. M. BLACKMAN.

The Dawn of Conscience. By JAMES HENRY BREASTED. Pp. xxvi+431, with 19 photographic plates. New York and London: Charles Scribner's Sons, 1934. 12s. 6d.

This book is mainly a revision and expansion of the author's *The Development of Religion and Thought in Ancient Egypt*, which appeared as long ago as 1912. There are, however, one or two important additions to be noted. Professor Breasted quotes largely from the *Teaching of Amenophis the son of Kanakht*, and holds to the view of Erman and Gressmann that portions of it form the basis of a section of the Biblical

Book of Proverbs (pp. 320 ff. and 372 ff.). He also accepts the late Professor Sethe's theory that there was a political union of Upper and Lower Egypt before the reign of Menes, and that Heliopolis was the capital of this pre-dynastic United Kingdom. But, strange to say, he ignores, or possibly has rejected, Sethe's brilliant explanation of the origin of the winged sun-disk (p. 25).¹

Professor Breasted is here addressing himself to a public very different from that for which he wrote his previous book on the ancient Egyptian religion. He sets out to demonstrate, principally to the harassed and disillusioned citizens of the United States, 'that the process of human advance which brought forth character is still unfinished—is still going on. The possibilities of the future,' he continues, 'are *unlimited*, and it is our responsibility to bring the vast significance of this new fact to bear as a practical influence upon our own conduct' (pp. 419 f.).

Enthusiastically though Professor Breasted propounds it, his view that Egypt is the *fons et origo* of 'conscience' will hardly find wide acceptance among ancient historians and anthropologists, or among Egyptologists either. It is true that in some of the wisdom-literature and in certain hymns and prayers we do find, earlier than in any other extant writings, a sense of the sinfulness of mankind, a recognition of the necessity for divine mercy, and a realisation that moral righteousness is more important than sacrifice. But it should not be overlooked that these highly ethical conceptions, which Professor Breasted believes originated in Egypt, are mostly to be found in compositions dating from times in which the Egyptians had been brought into closer contact than usual with foreign peoples. Thus the *Instruction for King Merikere*, the *Admonitions of an Egyptian Sage*, and the *Story of the Eloquent Peasant* were written during the First Intermediate Period, when the eastern Delta was invaded and occupied. The hymns and prayers referred to above, and writings such as the *Teaching of Amenophis*, belong to the Imperial age and an even later date, when the population of Egypt must have become exceedingly mixed owing to the hosts of prisoners brought into and distributed about the country by the victorious Pharaohs.²

That the world owes much to ancient Egyptian religious thought and ethical teaching no one can deny, and least of all an Egyptologist. But as yet we do not know enough, either about their immediate neighbours in early times, or about primitive mankind in general, to claim, as Professor Breasted seems to do, that 'conscience' was once a monopoly of the inhabitants of the Nile Valley.

A. M. BLACKMAN.

1. K. Sethe, *Urgeschichte und älteste Religion der Ägypter*, Leipzig, 1930.

2. See D. C. Simpson, *The Psalmists*, Oxford, 1926, pp. xiii f. and 196 f.; also the late Professor Peet's admirable Schweich Lecture, *A Comparative Study of the Literatures of Egypt, Palestine, and Mesopotamia*, London, 1931.

Un Socialisme d'État quinze siècles avant J.-C. : L'Égypte économique sous la XVIII^e Dynastie pharaonique. By SERGE DAIRAINES. Paris : Paul Geuthner, 1934.

On the evidence of the material here collected Monsieur Dairaines has come to the conclusion that the social and economic organisation of Egypt during the Eighteenth Dynasty was as follows. The government was completely centralised, the Pharaoh's power absolute, and all the resources of the country were at his disposal. All trades and industries were carried on under the control of the government or of the great religious corporations, and all land, apart from the temple-estates, was crown property; accordingly a son could not succeed to any land held by his father without the royal consent. This is much the same system as that prevailing in Ptolemaic Egypt, so admirably described and commented upon by Professor Rostovtzeff.¹

It must be apparent to anyone acquainted with the literature and other written records of the New Kingdom that Monsieur Dairaines has over-idealised the Eighteenth-Dynasty régime. For example, he says on p. 124 : ' Nous nous trouvons donc en présence d'un véritable socialisme d'État dans lequel la justice fait, comme nous l'avons vu, pour la première fois son apparition dans l'histoire.' And the book ends with the words : ' Mais aucun ne se doutera que 23 siècles avant eux (List, Robertus, Dupont-White and Adolf Wagner) régnait dans la Vallée du Nil, sous l'autorité d'un monarque absolu, un socialisme d'État moral et humanitaire.'

It might here be pointed out that Monsieur Dairaines is mistaken in his assertion that ' justice ' made its appearance for the first time in history during the Eighteenth Dynasty. The form of words addressed by the King to the Vizier at the latter's installation, to which reference is made on p. 39, is probably a Middle Kingdom document,² and, moreover, during the Twelfth Dynasty and the immediately preceding age ' justice ' seems to have been a favourite subject for discussion and to have given rise to many searchings of heart.³

But the thought occurs to one almost inevitably that if Monsieur Dairaines is correct in his reconstruction of social and economic life in Egypt during the Eighteenth Dynasty, then the decay of spirit and morale, which is so noticeable in the Egypt of the latter part of that dynasty and of the Ramesside period, may have been occasioned by the very system of government control and regimentation which he so highly praises ! This idea finds support in certain passages in Rostovtzeff's

1. *The Foundations of Social and Economic Life in Hellenistic Times*, in *Journ. of Egypt. Archaeology*, VI, pp. 161 ff.

2. See J. H. Breasted, *Development of Religion and Thought in Ancient Egypt*, London, 1912, p. 239, n.

3. See J. H. Breasted, *The Dawn of Conscience*, New York and London, 1934, pp. 182 ff.

above-mentioned article describing the effects of state socialism on the minds and character of the Egyptian people in Ptolemaic times. 'The spirit of the nation,' he says, 'was one of indifference—the dull obedience of serfs who possessed no initiative, no animation, and no patriotism, whose thoughts were wholly concentrated on the problems of their daily bread and economic interests. . . . Serfdom lay heavy upon the people, but protests were seldom heard. . . . The government was rich in money, but the country was poor in spirit, and hardly knew happiness.'

These are the best comments, perhaps, that can be made on Monsieur Dairaines' book in respect of its sentimental side. With regard to the historical side, many Egyptologists will feel that we need many more *facts*, and that the documentary evidence which we already possess needs to be much more carefully examined and sifted by philological experts, before we can come to any definite conclusion as to what actually was the economic and social system prevailing in Egypt during the Eighteenth Dynasty.

A. M. BLACKMAN.

Les Inscriptions Hittites Hiéroglyphiques. By BEDŘICH HROZNÝ.
Vol. I, Liv. II. Prague, 1934. Pp. 314, with Pls. III-XVI.

Dr. Hrozný follows up his clue to the decipherment of the Hittite hieroglyphic inscriptions (*Annals*, Vol. XX, p. 210) with increasing confidence; and though baffled here and there by difficulties, these are chiefly matters of grammatical detail or doubtful readings. The progress of his research in this field is remarkable. Soon after the publication of his first volume in 1933, his results were reviewed in a scholarly article in *Syria* (XIV, pp. 341 ff.) by E. Dhorme, himself a decipherer who appreciates the difficulties of pioneer work of this kind. M. Dhorme gave a succinct account of previous efforts, and paid a tribute to the earlier work of English scholars, notably Sayce, Thompson and Cowley, while emphasising the importance of the more recent work of Meriggi, Gelb, Bossert and Forrer in the same field.

The first step was evidently the interpretation of the ideograms, some of which admitted very little doubt, while others yielded their secrets to a systematic examination of their contents. The identity of individual signs and syllables was the next achievement, following the recognition and an exhaustive analysis of the proper names. Dhorme adduced as examples the names of Karkemish, Hamath, Gurgum (Marash, Marqasi), Tuwana (Tyana), etc., and a number of personal names, among them Urballa, Muwatali, Kalparunda, Hattusil and others, as well as names of divinities, like Teshup, Hepat and Sandas, showing where the several decipherers differed, and appraising with clear precision the value of their conclusions.

In September of 1933 a monograph by Hrozný, read before the *Académie des Inscriptions* by M. René Dussaud, summarised his reasons

for tentatively relating the language of the Hittite hieroglyphs to the *Centum* group of Indo-European languages, illustrating his conclusions by a translation of the seven inscriptions engraved on lead found at Assur in 1905 by Andrae, texts which, he points out, have nothing to do with Assyria in origin, but must be assigned to a Hittite and possibly Anatolian source.

In November of 1933 the indefatigable decipherer read a second monograph on the same subject before the Oriental Institute of Prague. This forms the second chapter of his present volume, and discusses with the same method the inscriptions from Carchemish, the most complete and comprehensive series recovered as yet from any Hittite site, and excellently well published by Hogarth, Woolley and Lawrence. The texts prove to be regal and 'monumental,' as was indeed to be conjectured from their associations, but the translations for the most part, notwithstanding a number of doubtful renderings and readings, make sense. Hrozný is surely on the right track.

Then follow studies of the well-known inscriptions upon the rocks at Bulghar Maden, on the lion of Marash, and on the building blocks from Hamath. For illustration of the first of these, the author makes use of the enlarged photographs of the Liverpool Institute of Archaeology which has gladly placed all its materials at his disposal, and the reproduction is excellent. The inscriptions of Hamath recall again the long labours of Professor Sayce to decipher these, and the use he made of them to demonstrate with his unique foresight the existence of a Forgotten Empire. In his brief and modest summary Hrozný is careful to emphasise the fact that he regards his transcriptions and translations to be only provisional, while reiterating his conviction as to the Indo-European character of the language expressed by these hieroglyphic texts. A word of congratulation should be offered also to the printers, who have established a clear and accurate fount of hieroglyphic type, which, together with the good printing and illustrations, make the volume a notable production.

J. GARSTANG.

The Quarterly of the Department of Antiquities in Palestine.

Vol. III. 1933. Pp. 187. (Each No., 5s.)

With the appearance of Part No. 4 the official journal of the Palestine Museum and Department of Antiquities completes its third year and fulfils its earlier promise. Twenty pages are devoted to the Department's continued excavations at Athlit, including in particular the ancient Tell which occupied the isthmus of the little peninsula on the point of which stood the *Castellum Peregrinorum*. The present report is prefaced with an admirable contoured plan of the whole area. The discoveries and architectural details are described with commendable brevity and clearness, and a series of really good photographs illustrates both these features. Soundings in the Tell show that it was in occupation as early

at least as Late Bronze Age I (1600-1400 B.C.), a fact which throws new light upon the archaeology of the district, though of course it may prove, like Ras Shamra, to have been the haunt of sea rovers of that period. The further excavation will certainly be followed with interest. Meanwhile, students of medieval architecture associated with the Crusades will find in this number fresh information derived from the excavation of the Bailey and outer defences, of which the plans and drawings are all that can be desired.

Accessions to the Museum are represented by 'A Bust of Pan,' an interesting medallion, described by Mr. Iliffe, the Keeper; and a 'Hoard of Mamluk Coins' faithfully catalogued by Dr. Mayer, formerly Librarian in the Department. With full deference to the latter's status as one of the most learned of modern Arabic scholars, we venture to urge upon him that the spelling *Al* does not phonetically represent the Arabic definite article, and is, in fact, usually reserved in English for a different word. In the accepted international scheme of transliteration, affecting geography and other sciences, the consonantal sounds are reproduced as in English speech and the vowel sounds as in the Romance languages. The vowel *A* in this scheme is thus much broader than the sound in the article usually transliterated *El*.

A very important and useful feature of this number is the series of short authoritative notes, filling 15 pages, on the progress and results of the researches and soundings accomplished or in progress on no fewer than fourteen sites in Palestine. Here the interested reader can find, *inter alia*, illuminative accounts of the systematic excavations of the Oriental Institute of Chicago at Megiddo, of the British School of Archaeology and other associated bodies at Samaria, of the Department's own Staff at Tell Abu Huwam in the south of the plain of Acre, of the Wellcome Expedition from London at Tell el Duweir, the probable site of Lachish, and of the British School and the American School of Prehistoric Research in the caves of the Wadi el Maghara. We cannot but congratulate the Department on having developed this feature of the *Quarterly*, which makes it possible for the student of the history and archaeology of Palestine to keep relatively abreast of current results; and in this respect further material is afforded by the complete Bibliography of reports on Excavations in Palestine published during last year, classified by sites.

In regard to the latter feature of this most useful publication we offer again a word or two of criticism as to the transliteration of the Arabic word for an ancient mound, familiar as Tell. To spell this 'Tall' not only appears pedantic but does not represent the common pronunciation of the word, which often as not is heard as Till. Nor can this new spelling claim authority in the Arabic original, and it is not even used by other members of the Department's staff (*e.g.* p. 145). Similarly, we may point to the anomalous spelling '*Atlîl*' for '*Athlîl*', which is now English, at any rate by adoption. The former may have some philological basis, but it is incompatible with phonetic reality. In support of

this contention we may contrast the title of the map and plan of Fig. 1 with the title of the report which faces it on p. 145. These, needless to say, are mere blemishes, but they attract the eye.

J. GARSTANG.

La Civilisation des Hittites et des Mitanniens. By Dr. G. CONTENEAU. Payot, Paris, 1934. Pp. 286, with 2 Maps, 27 Plates and 26 other illustrations.

The admirable method pursued by Dr. Conteneau in his *Manuel d'Archéologie Orientale*, which in its three volumes contains an amazing amount of condensed and well-ordered information, leads us to expect of him a high standard. If the present work falls in some respects behind his previous masterpiece, it exhibits the same talent for synthesis in his presentation of current results, coupled with good judgment in the selection of materials. No words are wasted, so that in this relatively small volume the reader is presented with a complete if rapid survey of the whole field of modern research bounded by its title.

The work comprises five main sections. The first is introductory, summarising in a general way our knowledge of the sources, the excavated sites, the decipherment of the Hittite cuneiform texts and hieroglyphic inscriptions, the races of Western Asia and the Indo-European migrations. The second deals with the 'Proto-Hittites,' the earlier group of Cappadocian tablets, a useful account of the excavation of Kultepe and Alishar, and discusses the glyptic, ceramic and plastic arts of the period, with special reference to the religious symbolism. The third, perhaps the most interesting chapter, deals with the Hurri and the Mitanni, and here the student will gratefully realise the author's simplification of a complex problem by the elimination of discussion and the bridging of pitfalls. He quotes only those opinions which appeal to him as conclusive. Mitanni occupied Mesopotamia, *Naharina*, lying to the north of Babylonia between the Tigris and the Euphrates, with *Wasugani*, its capital, probably not far from Ras El Ain. Hurri lay alongside, to the N.W., with *Urfa* (Syrian *Orhōi*, Greek *Orrhoë*) as its capital. The destiny of these two kingdoms was so closely allied and the two countries were so frequently associated that the Assyrians coupled them together as the kingdom of *Ḫanigalbat*. The chapter contains an account of the known history of Mitanni, the evidence of the tablets from Kirkuk, Mishrifé and Ras Shamra, the constitution, law, religion and religious art; and concludes with a discussion of the Hyksos invasion of Syria and Egypt, its relation to the Hurrians and the early Indo-European movements.

The fourth chapter deals with the Hittite Empire of Boghaz Keui, and though much of the information is well known, the author is justified in summarising it in his own way for the completion of his subject, and it is prefaced with an account of the earliest Hittite kingdoms and rulers based upon recent research. Hittite law, religion, priests and

ritual and art are successively described, together with a short account of metal work, seals and the ceramics of the period. Nothing more than a rapid survey is attempted, but it is the great merit of Dr. Conteneau's writing that he gives the reader a very clear impression of what appears to him to be the true and essential characteristics of each culture-area and period of history.

In one of the illustrations of this section we notice a curious error. The lower picture on Pl. VII represents one of the sculptured blocks fronting the royal entrance at Eyuk, on which, *R.*, appear two small figures, of whom one stands upon a ladder. Long ago, MM. Perrot and Chipiez (or some other pioneer explorer) described them as acrobats, and M. Conteneau, forgetfully, endorses this description. But the writer of these lines is in a position to affirm from personal examination of these sculptures (he published the fact in 1910) that the person upon the ladder is represented as using a hammer and chisel, both plainly visible upon the original, doubtless commemorating the construction of the wall or the sculptures of its façade. At Sakje Geuzi the foot of a masoned wall was found to be thickly strewn with stone chippings, showing it to have been dressed after construction. Incidentally, Sakje Geuzi, on p. 25, is said to be situated a short way to the N.E. of Boghaz Keui, but reference to p. 250 shows the latter name to be a slip of the pen for Sinjerli.

Chapters on the Syro-Hittites and the influence of the Hittites on Eastern and Western civilisation round off a very useful and comprehensive introduction to Hittite studies. We must pause in conclusion at p. 266, whereon an ingenious composite map shows the extent of agreement and disagreement between the earlier students of Hittite political geography, about which, let us hope, the progress of decipherment and exploration will set further controversy at rest. This book fills a distinct gap upon the student's bookshelf; and it can be read with profit by all who are interested in this field of modern research.

J. GARSTANG.

INDEX

- Aa-em-neter—131.
 Aa-em-neter-Ra—131.
 A-a-kha—131.
 Abraham—97.
 Achaea—60.
 Achæan pottery—51.
 Achæans—51, 52, 54, 59, 61, 62, 64, 65.
 Ahhijava—52, 57, 61.
 Ajia Irini—83.
 Aleppo—90.
 Alexander—86.
 Alishar—59, 60.
 Allat—96.
 Al Ubaid—91.
 Amasis—68, 69.
 Amenhetep II—107.
 Amenhetep III—130, 131.
 Amenophis III—108, 109.
 'Anat—96.
 Anatolia—60, 61.
 Anatoliens—94.
 Aphrodite—69.
 Apollo—69, 70, 74, 76.
 Arbela—85.
 Archaic Artemisia—84.
 Aristotle—85.
 Ashdod—95, 96.
 Ashêrat—96.
 'Ashtart—96.
 Ashton—5, 7.
 Ashurbanipal—87.
 Asia Minor—117.
 Asshur—91.
 Assyria—85, 86, 117.
 Astarte—116.
 Athens—27.
 Atuatuca—86.

 Baal—97.
 Babylon—85.
 Babylonia—117.
 Babylonians—117.
 Barrekub—41.
 Beisan—107, 109, 113, 115.
 Boghaz Keui—61.
 Boghaz-Koï—104.
 Bronze Age—92.
 Büyük Kalë—104.
 Byblos—93, 96, 97.

 Caesar—86.
 Canaan—96.
 Cananéens—93.
 Carchemish—59.
 Chaldée—97.

 Chester—5, 7, 8, 14.
 Chypre—94.
 Cilicia—59, 60, 61.
 Clytemnestra—54, 62.
 Constantinople—59.
 Corbulo—86.
 Cretans—58.
 Crete—51, 55, 62, 63, 96.
 Crucifixion—12.
 Curium—28.
 Cyprus—27, 28, 52, 53, 55, 57, 58, 61, 63,
 64, 92, 127.

 Dagan—117.
 Dagon—97.
 Darius—85.
 David—104.
 Dioscuri—69.
 Dipylon pottery—58.

 East Crete—54.
 Egypt—68, 96, 130.
 El—96.
 El Amarna—93, 95, 117.
 Ephesus—84.
 Esarhaddon—37, 87.
 Euphrates—86.

 Greece—52, 56, 57, 59, 61, 64.
 Greeks—69.

 Hadad—97.
 Harran—97.
 Hatshepsut—109, 130, 131.
 Hellenes—68.
 Hellenion—69.
 Hera—69.
 Hérodote—96.
 Herodotus—68, 69, 84, 85, 86, 88.
 Hetep-'ib-Ra—131.
 Hilani—100, 102, 103, 107, 122, 123, 124,
 132.
 Hiram—96.
 Hittite Malatia—109.
 Hittites—94.
 Hittite Syria—104.
 Hyksos—100, 121, 124, 130.

 Iberians—35.
 Ibn Batuta—88.
Iliad—51, 56.
 Inaros—69.
 Ishtar—87, 88.
 Ishtar Temple—91.
 Israël—98.

Jericho—99, 103, 104, 107, 125, 129.
 Jerusalem—108.
 Jonah—88.
 Juda—97.

Kalla Nunia—88.
 Kames—113.
 Ka-Mes—131.
 Keftiu—58, 61, 62.
 Kéramleis—85.
 Kéret—95, 97.
 Khosr—87.
 Khurrites—94.
 Knossos—62.

Laodicea—93.
 Liban—97.

Maat-ka-Ra—131.
 Macedonia—59, 64.
 Mami à Baal Saphon—94.
 Mediaeval pottery—5.
 Meherbates—87, 88.
 Men-Kheper-Ra—131.
 Mesopotamia—104.
 Mesopotamie—93, 96.
 Mésipila—86.
 Milesians—69.
 Minet-el-Beida—93, 94.
 Mishrifé—90.
 Mitanni—117.
 Mitanniens—94.
 Mithridates—87.
 Mycenae—54, 55, 56, 58, 61, 62.

Nabu—87, 88.
 Naucratis—67, 68, 69, 70, 77, 83, 84, 86.
 Nebbi Yunus—87, 88.
 Negeb—96.
 Negeb Ha-Keréti—95.
 Neirab—90.
 Nergal—87.
 Niebla—29, 30, 35, 36.
 Nile—71.
 Nina—88.
 Ninawa—88.
 Nineveh—85, 87, 88.
 Ninos—86, 88.
 Nippur—91.
 Niqmad—95.

Ophir—96.

Palestine—91, 92, 95.
 Parthians—87.
 Peet, Thomas Eric—3.
 Persians—82.
 Phanes—82.
 Phénicie—96.
 Phéniciens—94, 96.
 Philistine—104.
 Philistins—96.
 Philon—97.

Qadesh—94.
 Qadesh Barnéa—95.
 Qatna—90.
 Quintus Cicero—86.
 Quyunjik—87, 88.

Ra—131.
 Rabbi Benjamin—88.
 Rameses II—115.
 Rameses III—52.
 Ramsès—94.
 Ras Shamra—51.
 Ras Shamrah—93, 94, 96, 97, 98.
 Ré—131.
 Rhodes—94.
 Romans—86.

Sakjégeuzi—37, 40.
 Salomon—96.
 Se-ankh—131.
 Selemieh—90.
 Semites—93.
 Senb-ef—131.
 Sennacherib—87.
 Shamash—87.
 Sidon—95, 96.
 Sidoniens—97.
 Sinjerli—37, 39, 40, 41.
 Solomon—104.
 Strabo—68.
 Susa—63.
 Suse—93.
 Syrie—93.

Ta'annek—91, 92.
 Tacitus—85, 86, 87, 88.
 Tartar invasion—87.
 Taurus—58, 60, 61, 63, 64.
 Téglathphalasar—94.
 Tell Beit Mirsim—115, 128.
 Tell-el-Amarna—54, 116.
 Tell Ta'annek—91.
 Tholos Tomb—62, 63.
 Thutmose III—108, 109, 113, 121, 130, 131.
 Tigris—88.
 Tyr—95, 96.

Uadj-Kheper-Ra—131.
 Ugarit—93, 95.
 Ur—91, 97.

Vezir Senb-ef—124.
 Vologeses—86.
 Vrokastro—54.

West Derby—12.

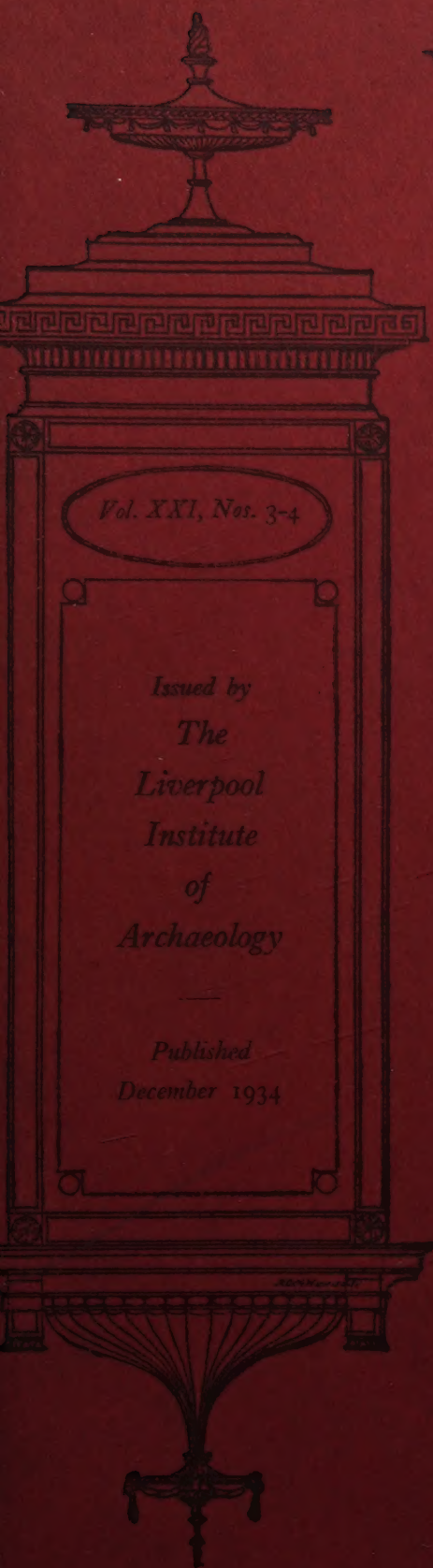
Xenophon—85, 87.

Yahvé—97.
 Yav—97.

Zabulon—97.

F-02.003

UNIVERSITY OF LIVERPOOL



Vol. XXI, Nos. 3-4

*Issued by
The
Liverpool
Institute
of
Archaeology*

*Published
December 1934*

ANNALS
OF
ARCHAEOLOGY
AND
ANTHROPOLOGY

The University Press of Liverpool



